



# **KBC Networks Price List U.S. and Canada**

**2017**

-L1 Price-

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## Index

About Model Numbers.....	3
Wireless Products.....	4
Wireless Ethernet System Kits.....	4
Wireless Ethernet System Modules .....	5
Wireless Mesh Ethernet Systems .....	6
Wireless System Accessories.....	6
Power Products .....	7
Mobile Surveillance System.....	7
PoE Power Kits .....	7
Remote Solar Power Kits .....	8
UPS Backup Kits.....	9
Power Kit Accessories.....	10
Networking Products.....	11
ThruLink™ .....	11
Encoders / Decoders.....	11
Ethernet Switches.....	11
Ethernet Switch Accessories.....	12
Extended Ethernet.....	13
Fiber Optic Ethernet Media Converters .....	14
Fiber Optic Products .....	17
Video Only.....	17
Video - Multiplexed .....	18
Video with Bi-Directional Data.....	19
Video with Bi-Directional Data and Contact Closures .....	21
Video with Contact Closures.....	21
Video with Return Simplex Data .....	22
Video with Up-The-Coax Control .....	22
Data .....	23
Data – Self Healing Ring.....	24
CAN Bus Data Transceivers .....	24
LONWORKS™ Bus Data Transceivers.....	24
PROFIBUS™ Bus Data Transceivers .....	25
TTL Data Transceivers .....	25
Current Limiting Transceivers.....	26
Audio.....	26
Contact Closures .....	27
Telephone.....	28
Chassis Card Cages .....	28
Broadcast Products.....	29
DVI.....	29
3G-SDI .....	29
HD-SDI .....	30
USB Extender .....	30
KVM Interface .....	30
ASFOM - Application Specific Fiber Optic Modems.....	31
About Model Numbers.....	31
Warranty Options and Support Services .....	32
Standard Terms and Conditions.....	33
Warranty .....	34

## About Model Numbers

Due to variations in geographic locations and system applications, KBC Networks offers many options in the configuration of models. Accordingly, the suffix of our product model numbers describes options available in their packaging. Default configurations are listed in this price schedule. Please contact your sales representative for assistance with special configuration requirements.

For example, referencing the table below, model FDVA1-M1T-**MSA** indicates the unit is configured in compact form factor, with ST connector, and US style power plug.

First digit (**x**) – packaging / form factor:

- W** Wall mount/desktop configuration
- M** Compact format
- R** 1U or 2U 19" rack mount (additional charges apply for Standard Digital models)
- B** 3U chassis card (for Standard Digital series)
- C** 4U chassis card (for ASFOM series)

Second digit (**y**) – fiber connector type used:

- F** FC connector
- S** ST connector
- C** SC connector
- L** LC connector

Third digit (**z**) – power plug type used:

- A** US power plug (120-127V, 15A, 2 pins ungrounded; 3 pins grounded)
- B** UK power plug (220-240V, 13A, 3 pins)
- C** Euro power plug (220-240V, 16A, 2 pins)

## Wireless Products

### Wireless Ethernet System Kits

Model Number	Product Description	MSRP
<b>WES3 Series Wireless Ethernet Systems</b>		
<b>WES3-KT</b>	Wireless Ethernet System Kit consisting of two (2) WES3-AX-Cz modules with 17dBi antennas and all mounting hardware.	<b>1,100.00</b>
<b>WES3-KT-9</b>	Wireless Ethernet System Kit consisting of two (2) WES3-AX-Bz modules with 9dBi antennas and all mounting hardware.	<b>1,100.00</b>
<b>WES3-KT-POE</b>	Wireless Ethernet System Kit consisting of two (2) WES3-AX-Cz PoE modules with 17dBi antennas and all mounting hardware.	<b>1,300.00</b>
<b>WES3-KT-ED</b>	Wireless Ethernet System Kit consisting of two (2) WES3-AX-Cz modules with 17dBi antennas, one (1) EDKT-A and all mounting hardware.	<b>2,470.00</b>
<b>WES3-KT-P5</b>	Wireless Ethernet System Kit consisting of two (2) WES3-AX-Cz modules with 17dBi antennas, one (1) ESULS4-EL1-P1 and DR120-48, and all mounting hardware.	<b>1,590.00</b>
<b>WES3-KT-P5T</b>	Wireless Ethernet System Kit consisting of two (2) WES3-AX-Cz modules with 17dBi antennas, one (1) ESULS4-EL1-P1 and SDR120-48, and all mounting hardware.	<b>1,750.00</b>
<b>WES3-KT-P8</b>	Wireless Ethernet System Kit consisting of two (2) WES3-AX-Cz modules with 17dBi antennas, one (1) ESUG8P-D and DRP240-48, and all mounting hardware.	<b>2,240.00</b>
<b>WES3-KT-P8T</b>	Wireless Ethernet System Kit consisting of two (2) WES3-AX-Cz modules with 17dBi antennas, one (1) ESUG8P-D and SDR240-48, and all mounting hardware.	<b>2,480.00</b>
<b>WES2HT Series High Throughput Wireless Ethernet Systems</b>		
<b>WES2HT-KT</b>	Wireless high throughput Ethernet System Kit consisting of one (1) WES2HT-AA-Cz and one (1) WES2HT-AC-Cz modules with 17dBi antennas and all mounting hardware.	<b>2,390.00</b>
<b>WES2HT-KT-4.9</b>	Wireless high throughput Ethernet System Kit consisting of one (1) WES2HT-BA-Cz and one (1) WES2HT-BC-Cz modules with 17dBi antennas and all mounting hardware.	<b>2,990.00</b>
<b>WES2HT-KT-P8</b>	Wireless high throughput Ethernet System Kit consisting of one (1) WES2HT-AA-Cz and one (1) WES2HT-AC-Cz modules with 17dBi antennas, one (1) ESUG8P-D and DRP240-48, and all mounting hardware.	<b>3,530.00</b>
<b>WES2HT-KT-P8T</b>	Wireless high throughput Ethernet System Kit consisting of one (1) WES2HT-AA-Cz and one (1) WES2HT-AC-Cz modules with 17dBi antennas, one (1) ESUG8P-D and SDR240-48, and all mounting hardware.	<b>3,770.00</b>
<b>WES3HTG Series High Throughput Wireless Ethernet Systems</b>		
<b>WES3HTG-KT</b>	Wireless High Throughput Gigabit Ethernet System Kit (up to 650Mbps bi-directionally) consisting of (2) WES3HTG-AX-CA modules with 17dBi antennas and all mounting hardware.	<b>2,980.00</b>
<b>WES3HTG-KT-P5</b>	Wireless high throughput Ethernet System Kit consisting of (2) WES3HTG-AX-CA modules with 17dBi antennas, one (1) ESUGS4-EG1-P1 and DR120-48, and all mounting hardware.	<b>3,610.00</b>
<b>WES3HTG-KT-P5T</b>	Wireless high throughput Ethernet System Kit consisting of (2) WES3HTG-AX-CA modules with 17dBi antennas, one (1) ESUGS4-EG1-P1 and SDR120-48, and all mounting hardware.	<b>3,770.00</b>
<b>WES3HTG-KT-P8</b>	Wireless high throughput Ethernet System Kit consisting of (2) WES3HTG-AX-CA modules with 17dBi antennas, one (1) ESUG8P-D and DRP240-48, and all mounting hardware.	<b>4,120.00</b>
<b>WES3HTG-KT-P8T</b>	Wireless high throughput Ethernet System Kit consisting of (2) WES3HTG-AX-CA modules with 17dBi antennas, one (1) ESUG8P-D and SDR240-48, and all mounting hardware.	<b>4,360.00</b>

## Wireless Ethernet System Modules

Model Number	Product Description	MSRP
<b>WES3 Series Individual Modules – 5GHz</b>		
WES3-AX-AA	5 GHz wireless Ethernet radio. Selectable point-to-point host, point to multipoint host or client. 5dBi omni directional antenna, US power plug.	650.00
WES3-AX-BA	5 GHz wireless Ethernet radio. Selectable point-to-point host, point to multipoint host or client. 9dBi directional antenna, US power plug.	550.00
WES3-AX-CA	5 GHz wireless Ethernet radio. Selectable point-to-point host, point to multipoint host or client. 17dBi directional antenna, US power plug.	550.00
<b>WES3 Series Individual Modules – 5GHz PoE</b>		
WES3-AX-AF	5 GHz wireless Ethernet radio. Selectable point-to-point host, point to multipoint host or client. 5dBi omni directional antenna, PoE powered (802.3af).	750.00
WES3-AX-BF	5 GHz wireless Ethernet radio. Selectable point-to-point host, point to multipoint host or client. 9dBi directional antenna, PoE powered (802.3af).	650.00
WES3-AX-CF	5 GHz wireless Ethernet radio. Selectable point-to-point host, point to multipoint host or client. 17dBi directional antenna, PoE powered (802.3af).	650.00
<b>WES2HT Series High Throughput Individual Modules – 5 GHz</b>		
WES2HT-AA-AA	5 GHz high throughput single point AP/host, 5dBi omni directional antenna, US power plug.	1,270.00
WES2HT-AA-BA	5 GHz high throughput single point AP/host, 9dBi directional antenna, US power plug.	1,280.00
WES2HT-AA-CA	5 GHz high throughput single point AP/host, 17dBi directional antenna, US power plug.	1,300.00
WES2HT-AB-AA	5 GHz high throughput multi point AP/host, 5dBi omni directional antenna, US power plug.	1,460.00
WES2HT-AB-BA	5 GHz high throughput multi point AP/host, 9dBi directional antenna, US power plug.	1,490.00
WES2HT-AC-AA	5 GHz high throughput client, 5dBi omni directional antenna, US power plug.	1,060.00
WES2HT-AC-BA	5 GHz high throughput client, 9dBi directional antenna, US power plug.	1,070.00
WES2HT-AC-CA	5 GHz high throughput client, 17dBi directional antenna, US power plug.	1,090.00
<b>WES2HT Series High Throughput Individual Modules – 4.9 GHz</b>		
WES2HT-BA-AA	4.9 GHz high throughput single point AP/host, 5dBi omni directional antenna. US power plug.	1,570.00
WES2HT-BA-BA	4.9 GHz high throughput single point AP/host, 9dBi directional antenna. US power plug.	1,580.00
WES2HT-BA-CA	4.9 GHz high throughput single point AP/host, 17dBi directional antenna. US power plug.	1,600.00
WES2HT-BB-AA	4.9 GHz high throughput multi point AP/host, 5dBi omni directional antenna. US power plug.	1,760.00
WES2HT-BB-BA	4.9 GHz high throughput multi point AP/host, 9dBi directional antenna. US power plug.	1,790.00
WES2HT-BC-AA	4.9 GHz high throughput client, 5dBi omni directional antenna. US power plug.	1,360.00
WES2HT-BC-BA	4.9 GHz high throughput client, 9dBi directional antenna. US power plug.	1,370.00
WES2HT-BC-CA	4.9 GHz high throughput client, 17dBi directional antenna. US power plug.	1,390.00
<b>WES3 Series High Throughput Individual Modules – 5GHz</b>		
WES3HTG-AX-AA	5 GHz high throughput (up to 650Mbps bi-directional) wireless Ethernet radio. Selectable point-to-point host, point to multipoint host or client. 5dBi omni directional antenna, PoE or US power plug.	1,590.00
WES3HTG-AX-BA	5 GHz high throughput (up to 650Mbps bi-directional) wireless Ethernet radio. Selectable point-to-point host, point to multipoint host or client. 9dBi directional antenna, PoE or US power plug.	1,490.00
WES3HTG-AX-CA	5 GHz high throughput (up to 650Mbps bi-directional) wireless Ethernet radio. Selectable point-to-point host, point to multipoint host or client. 17dBi directional antenna, PoE or US power plug.	1,490.00

## Wireless Mesh Ethernet Systems

Model Number	Product Description	MSRP
<b>MESH2HT Series High Throughput Dual Radio Nodes</b>		
MESH2HT-AA-OA	MESH2HT high throughput node. Dual 5 GHz radio node kit. Includes four 5dBi omni-directional antennas, power supply and outdoor wall/pole mount kit. US power supply.	2,090.00
MESH2HT-AB-OA	MESH2HT high throughput node. Dual radio node kit - 5 GHz primary radio, 4.9 GHz secondary radio. Includes four 5dBi omni-directional antennas, power supply and outdoor wall/pole mount kit. US power plug.	2,390.00
MESH2HT-AC-OA	MESH2HT high throughput node. Dual radio node kit - 5 GHz primary radio, 2.4 GHz secondary radio. Includes four 5dBi omni-directional antennas, power supply and outdoor wall/pole mount kit. US power plug.	2,090.00
MESH2HT-BB-OA	MESH2HT high throughput node. Dual 4.9 GHz radio node kit. Includes four 5dBi omni-directional antennas, power supply and outdoor wall/pole mount kit. US power plug.	2,690.00
MESH2HT-BC-OA	MESH2HT high throughput node. Dual radio node kit - 4.9 GHz primary radio, 2.4 GHz secondary radio. Includes four 5dBi omni-directional antennas, power supply and outdoor wall/pole mount kit. US power plug.	2,390.00
<b>Antenna with Connecting Cable</b>		
PAT5M	5 GHz 17dBi MIMO antenna with connecting cables.	350.00
OD5M-13	5 GHz 13dBi high gain omni-directional antenna.	350.00
VT58G	5 GHz 5dBi omni-directional antenna.	24.00

## Wireless System Accessories

Model Number	Product Description	MSRP
<b>Accessories for Wireless</b>		
LWE	Large Weather Enclosure	150.00
LWE-ED	Large Weather Enclosure - Encoder	160.00
SWE	Small Weather Enclosure - 5.8 systems	140.00
SWE-O	Small Weather Enclosure - Omni Access Point	140.00
LNBMB	LNB Mounting Bracket used w/ ML 5.8	64.00
MB	Mounting Bracket used w/ ML 5.8 TX &/or LNB	28.00
PIM-A	Replacement power injection module used with WEM modules. 12VDC input. US power plug.	90.00
WESII-MB	Mounting bracket kit for WESII Series modules.	64.00
WESII-PIM	Replacement power injection module used with WESII Series modules. 24VDC input.	90.00
WESII-PIM-A	Combo power injection module / power supply used with WESII Series modules. 100-240VAC input, 24VDC output. US power plug.	90.00
WESII-PIM-WP	Wall plug power supply injector used with WESII Series modules. 24VDC input.	90.00
HT-PIM	Power injection module used with gigabit HT Series modules. 24VDC input.	90.00
PS-1000A	12VDC 1000mA power supply for use with ML5.8, D9, WES, Mesh & THLK SC series. US power plug.	14.00
PS-1000-F-MA	12VDC 1000mA power supply for use with KBC compact configuration fiber optic modules. US power plug.	20.00
PS-1000-F-WA	12VDC 450mA power supply for use with KBC desktop / wall mount configuration fiber optic modules. US power plug.	22.00
PS-1500-EDA	12VDC 1500mA power supply for use with KBC encoder and decoder only. US power plug.	22.00
PS-1500-F-MA	12VDC 1500mA power supply for use with KBC compact configuration fiber optic modules. US power plug.	22.00
PS-2000-F-WA	12VDC 2A power supply for use with KBC desktop / wall mount configuration fiber optic modules. US power plug.	25.00
PS-450-F-MA	12VDC 450mA power supply for use with KBC compact configuration fiber optic modules. US power plug.	20.00
PS24-500A	24VDC power supply for use with KBC WESII systems. US power plug.	14.00

## Power Products

### Mobile Surveillance System

Model Number	Product Description	MSRP
<b>Mobile Surveillance System</b>		
MSS-KT	Mobile Surveillance System. Kit includes the base unit, one removable head unit, 100-watt solar panel, charge controller, 12 VDC to PoE converter with room for up to three 100 Ah batteries. (Contact KBC for accessories and transmission options).	7,000.00

### PoE Power Kits

Model Number	Product Description	MSRP
<b>PoE Power Kits</b>		
KBC-SPB-1AF-24	Power kit providing PoE power for (1) 802.3af IP camera and (1) 24V PoE antenna. Input: 100-240VAC. Output: (1) 48VDC 802.3af PoE for IP camera and (1) 24VDC PoE for antenna. NEMA 4X cast aluminum enclosure with 3-6" pole/wall mount.	630.00
KBC-SPB-1AT-24	Power kit providing PoE power for (1) 802.3AT IP PTZ camera and (1) 24V PoE antenna. Input: 100-240VAC. Output: (1) 48VDC 802.3at PoE for IP PTZ camera and (1) 24VDC PoE for antenna. NEMA 4X cast aluminum enclosure with 3-6" pole/wall mount.	796.00
KBC-SPB-1AT-48	Power kit providing PoE power for (1) 802.3at IP PTZ camera and (1) 48V PoE antenna. Input: 100-240VAC. Output: (1) 48VDC 802.3at PoE for IP PTZ camera and (1) 48VDC PoE for antenna. NEMA 4X cast aluminum enclosure with 3-6" pole/wall mount.	796.00
KBC-SPB-24VAC-24	Power kit providing PoE power for (1) IP PTZ camera and (1) 24V PoE antenna. Input: 100-240VAC. Output: (1) 24VAC, 1.6A for IP PTZ camera and (1) 24VDC PoE for antenna. NEMA 4X cast aluminum enclosure with 3-6" pole/wall mount.	796.00
KBC-SPB-24VAC-24HP	Power kit providing 24VAC power for (1) IP PTZ camera and (1) 24V PoE antenna. Input: 100-240VAC. Output: (1) 24VAC, 4A for IP PTZ camera and (1) 24VDC PoE for antenna. NEMA 4X cast aluminum enclosure with 3-6" pole/wall mount.	1,300.00
KBC-SPB-HPoE-24	Power kit providing high PoE power for (1) IP PTZ camera and (1) 24V PoE antenna. Input: 100-240VAC. Output: (1) high PoE for IP PTZ camera 70W max, and (1) 24VDC PoE for antenna. NEMA 4X cast aluminum enclosure with 3-6" pole/wall mount.	1,100.00
KBC-SPB-HPoE-48	Power kit providing high PoE power for (1) IP PTZ camera and (1) 48V PoE antenna. Input: 100-240VAC. Output: (1) high PoE for IP PTZ camera 70W max, and (1) 48VDC PoE for antenna. NEMA 4X cast aluminum enclosure with 3-6" pole/wall mount.	1,100.00
KBC-SPB-4AF-24	Power kit providing PoE power for (4) 802.3at IP cameras and (1) 24V PoE antenna. Input: 100-240VAC. Output: (4) 48VDC 802.3af/at PoE for IP cameras and (1) 24VDC PoE for antenna. NEMA 4X cast aluminum enclosure with 3-6" pole/wall mount.	1,125.00
KBC-SPB-4AF-48	Power kit providing PoE power for (4) 802.3at IP cameras and (1) 48V PoE antenna. Input: 100-240VAC. Output: (4) 48VDC 802.3af/at PoE for IP cameras and (1) 48VDC PoE for antenna. NEMA 4X cast aluminum enclosure with 3-6" pole/wall mount.	1,125.00
KBC-SPB-24-24	Relay power kit providing PoE power for (2) 24V PoE antennas. Input: 100-240VAC. Output: (2) 24VDC PoE for antennas. NEMA 4x cast aluminum enclosure with 3"-6" pole/wall mount.	420.00
KBC-SPB-48-48	Relay power kit providing PoE power for (2) 48V PoE antennas. Input: 100-240VAC. Output: (2) 48VDC PoE for antennas. NEMA 4x cast aluminum enclosure with 3"-6" pole/wall mount.	420.00

## Remote Solar Power Kits

Model Number	Product Description	MSRP
<b>Remote Solar Power Kits - Lithium Phosphate (LiFePo4) Compatible</b>		
<b>KBC-AL2-100W</b>	100 Watt Advanced Remote Power Kit - Lithium compatible. Side panel mount for 3-6" pole. Includes (1) 100W solar panel. Maximum 3.5-14 continuous watts depending on geographic location. NEMA 4X powder-coated aluminum enclosure with space for (4) 120Ah equivalent LiFePo4 or (2) 100Ah SLA batteries, Batteries and pole not included.	<b>2,350.00</b>
<b>KBC-AL2-200W</b>	200 Watt Advanced Remote Power Kit - Lithium compatible. Side panel mount for 3-6" pole. Includes (2) 100W solar panels. Maximum 7-27 continuous watts depending on geographic location. NEMA 4X powder-coated aluminum enclosure with space for (4) 120Ah equivalent LiFePo4 or (2) 100Ah SLA batteries, Batteries and pole not included.	<b>3,200.00</b>
<b>KBC-AL2-250W</b>	250 Watt Advanced Remote Power Kit - Lithium compatible. Side panel mount for 3-6" pole. Includes (1) 250W solar panel. Maximum 8-35 continuous watts depending on geographic location. NEMA 4X powder-coated aluminum enclosure with space for (4) 120Ah equivalent LiFePo4 or (2) 100Ah SLA batteries, Batteries and pole not included.	<b>3,850.00</b>
<b>KBC-AL2-300W</b>	300 Watt Advanced Remote Power Kit - Lithium compatible. Side panel mount for 3-6" pole. Includes (1) 300W solar panel. Maximum 10-45 continuous watts depending on geographic location. NEMA 4X powder-coated aluminum enclosure with space for (4) 120Ah equivalent LiFePo4 or (2) 100Ah SLA batteries, Batteries and pole not included.	<b>4,300.00</b>
<b>KBC-AL2-500W</b>	500 Watt Advanced Remote Power Kit - Lithium compatible. Side panel mount for 3-6" pole. Includes (2) 250W solar panels. Maximum 16-70 continuous watts depending on geographic location. NEMA 4X powder-coated aluminum enclosure with space for (4) 120Ah equivalent LiFePo4 or (2) 100Ah SLA batteries, Batteries and pole not included.	<b>5,750.00</b>
<b>KBC-AL2-600W</b>	600 Watt Advanced Remote Power Kit - Lithium compatible. Side panel mount for 3-6" pole. Includes (2) 300W solar panels. Maximum 20-90 continuous watts depending on geographic location. NEMA 4X powder-coated aluminum enclosure with space for (4) 120Ah equivalent LiFePo4 or (2) 100Ah SLA batteries, Batteries and pole not included.	<b>6,100.00</b>
<b>KBC-AL2-1200W</b>	1200 Watt Advanced Remote Power Kit - Lithium compatible. Includes (1) adjustable top of 8" Schedule 40 metal pole solar mount and (4) 300W solar panels. Maximum 40-180 continuous watts depending on geographic location. NEMA 4X powder-coated aluminum enclosure with space for (4) 120Ah equivalent LiFePo4 or (2) 100Ah SLA batteries, Batteries not included.	<b>8,550.00</b>
<b>Remote Solar Power Kits - Lithium Phosphate (LiFePo4) Compatible</b>		
<b>KBC-AL5-100W</b>	100 Watt Advanced Remote Power Kit - Lithium compatible. Side panel mount for 3-6" pole. Includes (1) 100W solar panel. Maximum 3.5-14 continuous watts depending on geographic location. NEMA 4X powder-coated aluminum enclosure with space for (8) 120Ah equivalent LiFePo4 or (2) 250Ah SLA batteries, Batteries and pole not included.	<b>3,350.00</b>
<b>KBC-AL5-200W</b>	200 Watt Advanced Remote Power Kit - Lithium compatible. Side panel mount for 3-6" pole. Includes (2) 100W solar panels. Maximum 7-27 continuous watts depending on geographic location. NEMA 4X powder-coated aluminum enclosure with space for (8) 120Ah equivalent LiFePo4 or (2) 250Ah SLA batteries, Batteries and pole not included.	<b>4,300.00</b>
<b>KBC-AL5-250W</b>	250 Watt Advanced Remote Power Kit - Lithium compatible. Side panel mount for 3-6" pole. Includes (1) 250W solar panel. Maximum 8-35 continuous watts depending on geographic location. NEMA 4X powder-coated aluminum enclosure with space for (8) 120Ah equivalent LiFePo4 or (2) 250Ah SLA batteries, Batteries and pole not included.	<b>5,000.00</b>
<b>KBC-AL5-300W</b>	300 Watt Advanced Remote Power Kit - Lithium compatible. Side panel mount for 3-6" pole. Includes (1) 300W solar panel. Maximum 10-45 continuous watts depending on geographic location. NEMA 4X powder-coated aluminum enclosure with space for (8) 120Ah equivalent LiFePo4 or (2) 250Ah SLA batteries, Batteries and pole not included.	<b>5,250.00</b>
<b>KBC-AL5-500W</b>	500 Watt Advanced Remote Power Kit - Lithium compatible. Side panel mount for 3-6" pole. Includes (2) 250W solar panels. Maximum 16-70 continuous watts depending on geographic location. NEMA 4X powder-coated aluminum enclosure with space for (8) 120Ah equivalent LiFePo4 or (2) 250Ah SLA batteries, Batteries and pole not included.	<b>6,400.00</b>



Model Number	Product Description	MSRP
KBC-AL5-600W	600 Watt Advanced Remote Power Kit - Lithium compatible. Side panel mount for 3-6" pole. Includes (2) 300W solar panels. Maximum 20-90 continuous watts depending on geographic location. NEMA 4X powder-coated aluminum enclosure with space for (8) 120Ah equivalent LiFePo4 or (2) 250Ah SLA batteries, Batteries and pole not included.	6,700.00
KBC-AL5-1200W	1200 Watt Advanced Remote Power Kit - Lithium compatible. Includes (1) adjustable top of 8" Schedule 40 metal pole solar mount and (4) 300W solar panels. Maximum 40-180 continuous watts depending on geographic location. NEMA 4X powder-coated aluminum enclosure with space for (8) 120Ah equivalent LiFePo4 or (2) 250Ah SLA batteries, Batteries not included.	9,050.00

## UPS Backup Kits

Model Number	Product Description	MSRP
<b>Outdoor UPS Backup Kits</b>		
KBC-UAL2-12	12VDC UPS backup charge kit. Advanced 3 Stage Lithium UPS controller w/ Lithium Algorithm. Space for (4) 120Ah equivalent LiFePo4 or (2) 100Ah SLA batteries. NEMA 4X outdoor enclosure, industrial wall/pole mount. Input: 110-220VAC, Output: 12VDC/24A. Pole and batteries not included.	1,890.00
KBC-UAL2-24	24VDC UPS backup charge kit. Advanced 3 Stage Lithium UPS controller w/ Lithium Algorithm. Space for (4) 120Ah equivalent LiFePo4 or (2) 100Ah SLA batteries. NEMA 4X outdoor enclosure, industrial wall/pole mount. Input: 110-220VAC, Output: 24VDC/12.5A. Pole and batteries not included.	1,950.00
KBC-UAL2-48	48VDC UPS backup charge kit. Advanced 3 Stage Lithium UPS controller w/ Lithium Algorithm. Space for (4) 120Ah equivalent LiFePo4 or (2) 100Ah SLA batteries. NEMA 4X outdoor enclosure, industrial wall/pole mount. Input: 110-220VAC, Output: 48VDC/6.3A. Pole and batteries not included.	1,950.00
KBC-UAL5-12	12VDC UPS backup charge kit. Advanced 3 Stage Lithium UPS controller w/ Lithium Algorithm. Space for (8) 120Ah equivalent LiFePo4 or (2) 250Ah SLA batteries. NEMA 4X outdoor enclosure, industrial wall/pole mount. Input: 110-220VAC, Output: 12VDC/24A. Pole and batteries not included.	2,950.00
KBC-UAL5-24	24VDC UPS backup charge kit. Advanced 3 Stage Lithium UPS controller w/ Lithium Algorithm. Space for (8) 120Ah equivalent LiFePo4 or (2) 250Ah SLA batteries. NEMA 4X outdoor enclosure, industrial wall/pole mount. Input: 110-220VAC, Output: 24VDC/12.5A. Pole and batteries not included.	2,950.00
KBC-UAL5-48	48VDC UPS backup charge kit. Advanced 3 Stage Lithium UPS controller w/ Lithium Algorithm. Space for (8) 120Ah equivalent LiFePo4 or (2) 250Ah SLA batteries. NEMA 4X outdoor enclosure, industrial wall/pole mount. Input: 110-220VAC, Output: 48VDC/6.3A. Pole and batteries not included.	2,950.00
<b>Solar Kit and UPS Batteries - Lithium Ion Phosphate</b>		
KBC-LIFEPO4-1220	12V/20Ah Lithium Phosphate Battery/BMS. 240W of stored power (~ equal to a 40Ah SLA in energy available).	560.00
KBC-LIFEPO4-1220-EX	Coming Soon - Extreme Temperature 12V/20Ah Lithium Phosphate Battery/BMS. 240W of stored power (~ equal to a 40Ah SLA in energy available). -30°F to 140°F operating temperature.	680.00
KBC-LIFEPO4-1260	12V/60Ah Lithium Phosphate Battery/BMS. 720W of stored power (~ equal to a 110Ah SLA in energy available).	1,200.00
KBC-LIFEPO4-1260-EX	Coming Soon - Extreme Temperature 12V/60Ah Lithium Phosphate Battery/BMS. 720W of stored power (~ equal to a 110Ah SLA in energy available). -30°F to 140°F operating temperature.	1,360.00

## Power Kit Accessories

Model Number	Product Description	MSRP
<b>Accessories for the Power Kits - (PoE Injectors / DC to DC Converters / DC to AC Converters)</b>		
KBC-PRODIGY	7 Port, Smart PoE Switch/System Monitor/MPPT Solar Charge Control with Datalogger: Web/SNMP access. Customizable email alerts. Auto control PoE ports by temperature, volts, amps, time, or ping.	920.00
KBC-PDGY-MINI	Remote System Monitor/Control with Datalogger: Web/SNMP access. Measure up to 4 voltages/currents, and 2 temperatures. Auto control relays by temperature, volts, amps, time, or ping.	460.00
KBC-VE-DC/DC-18	PoE converter/injector. Input: 9-36VDC. Output: 18V PoE (1A/18W). Convert to screw terminal using part no. VE-POEWIRE.	140.00
KBC-VE-DC/DC-24	PoE converter/injector. Input: 9-36VDC. Output: 24V PoE (0.8A/19W). Convert to screw terminal using part no. VE-POEWIRE.	140.00
KBC-VE-DC/DC-48M	PoE converter/injector (metal case). Input: 9-36VDC. Output: 48V PoE (802.3af, 0.5A/24W). Convert to screw terminal using part no. VE-POEWIRE.	150.00
KBC-VE-DC/DC-1248P	PoE converter/injector. Input: 10-15VDC, Output:56V PoE (802.3at Gigabit-passive, 35W).	210.00
KBC-VE-DC/DC-1248-HP	PoE converter/injector. Input: 10-15VDC, Output:56V PoE (802.3af/at Gigabit, 35W).	260.00
KBC-VE-DC/DC-2448P	PoE converter/injector. Input: 18-36VDC. Output: 56V PoE (802.3at Gigabit-passive, 35W)..	210.00
KBC-VE-DC/DC-2448-HP	PoE converter/injector. Input: 18-36VDC. Output: 56V PoE (802.3af/at Gigabit, 35W)..	270.00
KBC-VE-DC/DC-2456P-70W	PoE converter/injector. Input: 18-36VDC. Output: 56V PoE (802.3at Gigabit, 70W)..	386.00
KBC-CV-24DC-12DC	DC/DC voltage converter/regulator. Input: 18-32 VDC. Output: 12VDC (15W, 1.25A).	70.00
KBC-CV-24DC-12DC-60W	DC/DC voltage converter/regulator. Input 24 VDC. Output: 12VDC (60W, 5A).	300.00
KBC-VE-DINPOE5	Industrial PoE Ethernet switch, Layer 2 unmanaged, (4) 48V PoE+ 10/100/1000Mbps LAN ports (802.3at) and (1) uplink port. Input:10-36VDC. DIN rail mount.	550.00
KBC-VE-DINPOE5-D	Industrial PoE Ethernet switch, Layer 2 unmanaged, (4) 48V PoE+ 10/100/1000Mbps LAN ports (802.3at) and (1) uplink port. Input:36-72VDC. DIN rail mount.	550.00
KBC-CV-12DC-24AC	12VDC to 24VAC converter/regulator. Input: 11-14VDC (5A max), Output: 24VAC (40W, 1.7A). 5°-125°F operating temperature. Requires enclosure shade.	350.00
KBC-CV-12DC-24DC-70W	12VDC to 24VDC converter/regulator. Input: 10-15VDC, Output: 24VDC (70W max).	294.00
KBC-CV-24DC-24AC	24VDC to 24VAC converter. Input: 22-29VDC (5A max), Output: 24VAC (40W, 1.6A). 5°-125°F operating temperature. Requires enclosure shade.	350.00
KBC-CV-24DC-18AC	24VDC to 18VAC converter. Input: 22-29VDC (5A max), Output: 18VAC (40W, 2.2A). 5°-125°F operating temperature. Requires enclosure shade.	660.00
KBC-CV-24DC-24AC-100W	24VDC to 24VAC converter. Input: 20-30VDC, Output: 24VAC (100W). - 10°-125°F operating temperature. Requires enclosure shade.	750.00
KBC-VE-POEINJ	PoE injector with LED indicator showing active 12V or 24V power. Requires FDCPG pigtail adapter for power (sold separately).	14.00
KBC-VE-POEINJ-G	Gigabit PoE injector with LED indicator showing active 12V or 24V power. Requires FDCPG pigtail adapter for power (sold separately).	18.00
KBC-FDCPG	Pigtail power adapter for POEINJ and POEINJ-G (needed for power Injector).	3.00
KBC-VWT450-24	450W 24VDC wind turbine. Auto voltage detect with charge controller. Starts producing power at 4.7mph. Rated for wind speed bursts up to 90mph, over-speed protection.	1,640.00
KBC-VE-INV350-12	12VDC to 110 VAC 350W power inverter.	590.00
KBC-VE-INV350-24	24VDC to 110 VAC 350W power inverter.	590.00
KBC-VE-INV350-48	48VDC to 110 VAC 350W power inverter.	590.00

## Networking Products

### ThruLink™

Model Number	Product Description	MSRP
<b>ThruLink</b>		
THLK-SC-OO-AN-WA	ThruLink™ standard capacity hardware VPN transceiver. 15Mbps, TL2 firmware, up to 256-bit AES, Camellia, Blowfish. (1) LAN port, (1) WAN port, desktop/wall-mount, US power supply.	870.00
THLK-SP-OO-AN-WA	ThruLink™ standard-plus capacity hardware VPN transceiver. 30Mbps, TL2 firmware, up to 256-bit AES, Camellia, Blowfish. (1) LAN port, (1) WAN port, desktop/wall-mount, US power supply.	1,050.00
THLK-SC-CO-AN-WA	ThruLink™ standard capacity hardware VPN transceiver. 15Mbps, TL2 firmware, up to 256-bit AES, Camellia, Blowfish. (1) LAN port, (1) WAN port, (1) 4G LTE (USA) modem, desktop/wall-mount, US power supply.	1,335.00
THLK-SP-CO-AN-WA	ThruLink™ standard-plus capacity hardware VPN transceiver. 30Mbps, TL2 firmware, up to 256-bit AES, Camellia, Blowfish. (1) LAN port, (1) WAN port, (1) 4G LTE (USA) modem, desktop/wall-mount, US power supply.	1,516.00
MDR20-12	DIN rail power supply for ThruLink™ Standard and Standard-Plus. 20W, 12VDC out, wide temperature range.	80.00
THLK-H3-RA	High Capacity, 100Mbps, 1 x LAN, 1 x WAN, TL2 firmware, 1RU rack mount, US power supply.	3,840.00
THLK-H4-RA	High Capacity, 200Mbps, 1 x LAN, 1 x WAN, TL2 firmware, 1RU rack mount, US power supply.	4,500.00

### Encoders / Decoders

Model Number	Product Description	MSRP
<b>Encoders, Decoders</b>		
EDKT-H	H.264, MPEG4 SP, MJPEG encoder, MPEG4 decoder kit with enclosure & mounting hardware. Desktop unit, US power plug.	1,370.00
ENC-H	H.264, MPEG4 SP, MJPEG video/data server/encoder. Desktop unit, US power plug.	610.00
DEC-A	MPEG4 video/data decoder. Desktop unit, US power plug.	610.00

### Ethernet Switches

Model Number	Product Description	MSRP
<b>Unmanaged Ethernet Switch</b>		
ESUL5-DA	Industrial Ethernet switch, unmanaged, (5) electrical 10/100Mbps LAN ports. Input: 12-36VDC. DIN rail mount. US power plug.	250.00
ESUL6-FL2-M2-DCA	Industrial Ethernet switch, unmanaged, (6) electrical 10/100Mbps LAN ports, (2) optical 100Mbps LAN ports, 2 fibers per optical port, SC connectors, multi-mode. 12dB loss budget, 4km range. Input: dual redundant 12-36VDC. DIN rail mount. US power plug.	800.00
ESUL6-FL2-S2-DCA	Industrial Ethernet switch, unmanaged, (6) electrical 10/100Mbps LAN ports, (2) optical 100Mbps LAN ports, 2 fibers per optical port, SC connectors, single mode. 15dB loss budget, 40km range. Input: dual redundant 12-36VDC. DIN rail mount. US power plug.	1,000.00
ESUL8-DA	Industrial Ethernet switch, unmanaged, (8) electrical 10/100Mbps LAN ports. Input: 12-36VDC. DIN rail mount. US power plug.	420.00
<b>Unmanaged Ethernet Switch, PoE</b>		
ESULS4-EL1-P1	Industrial Ethernet switch, unmanaged, (4) 10/100Mbps IEEE 802.3af/at PoE+ RJ-45 downlink ports, (1) 100Mbps optical uplink port, (1) 10/100Mbps RJ45 uplink port. Default & CCTV modes. Input: 48-57VDC. Requires power supply sold separately. Desktop/wall-mount.	350.00
ESULH4-L1-W	Industrial Ethernet switch, unmanaged, (4) electrical 10/100Mbps LAN ports (up to 70W per port), (1) uplink port, desktop/wall-mount.	890.00
ESUGS4-EG1-P1	Industrial Ethernet switch, unmanaged, (4) 1000Mbps IEEE 802.3af/at PoE+ RJ-45 downlink ports, (1) 1000Mbps SFP uplink ports. Input: 38-57VDC. Requires power supply sold separately. Desktop/wall-mount.	490.00
ESUGH4-EG2-P2	Industrial Ethernet switch, unmanaged, (4) 1000Mbps IEEE 802.3af/at PoE+ (port #1 up to 60W) RJ-45 downlink ports, (2) 1000Mbps SFP uplink port, (2) 10/100/1000Base-T RJ45 uplink ports, wherein one optical and one Ethernet uplinks are a combo port. Input: redundant 48-57VDC. Requires power supply sold separately. Desktop/wall-mount.	600.00

Model Number	Product Description	MSRP
ESULS8-EG1-P1	Industrial Ethernet switch, unmanaged, (8) electrical 10/100Mbps IEEE802.3af/at PoE ports, (1) 1000Mbps SFP uplink port, and (1) 10/100/1000Mbps RJ45 uplink port. Default & CCTV modes. Input: 48-57VDC. Requires power supply sold separately. Desktop/wall-mount.	800.00
ESUG8P-D	Industrial Ethernet switch, unmanaged, (8) electrical 10/100/1000Mbps LAN ports, IEEE802.3at PoE+. Requires power supply sold separately. DIN rail mount.	900.00
<b>Managed Ethernet Switch</b>		
ESML6-FL2-M2-DCA	Industrial Ethernet switch, Layer 2 managed, (6) electrical 10/100Mbps LAN ports, redundant (2) optical 100Mbps LAN ports, 2 fibers per optical port, SC connectors, multi-mode. 12dB loss budget, 4km range. Dual redundant 12-36Vdc input. DIN rail mount. US power plug.	1,450.00
ESML6-FL2-S2-DCA	Industrial Ethernet switch, Layer 2 managed, (6) electrical 10/100Mbps LAN ports, redundant (2) optical 100Mbps LAN ports, 2 fibers per optical port, SC connectors, single mode. 15dB loss budget, 40km range. Dual redundant 12-36Vdc input. DIN rail mount. US power plug.	1,550.00
<b>Managed Ethernet Switch, PoE</b>		
ESMGS8-C2-D	Industrial Ethernet switch, Layer 2 managed, (8) electrical gigabit LAN ports, IEEE802.3af/af PoE+, (2) gigabit combo uplink ports. Requires power supply sold separately. DIN rail mount.	1,300.00
ESMGH8-P4	Industrial Ethernet switch, Layer 2 managed, (8) 10/100/1000Base-T IEEE802.3af/at PoE+ (port #1 up to 60W) RJ-45 downlink ports, (4) 1000Base-X SFP uplink ports. Input: 48-57VDC. Requires power supply sold separately. Desktop/wall-mount.	990.00
ESMGS16-P2-RA	Commercial grade Ethernet switch, Layer 2 managed, (16) electrical 10/100/1000Mbps LAN ports, IEEE802.3at PoE+, (2) gigabit SFP ports. 1RU rack mount. US power plug.	1,190.00
ESMGS16-P2-RAT	Industrial Ethernet switch, Layer 2 managed, (16) electrical 10/100/1000Mbps LAN ports, IEEE802.3at PoE+, (2) gigabit SFP ports. 1RU rack mount. US power plug.	1,390.00
ESMGS24-P4-RA	Commercial grade Ethernet switch, Layer 2 managed, (24) electrical 10/100/1000Mbps LAN ports, IEEE802.3at PoE+, (4) gigabit SFP ports. 1RU rack mount. US power plug.	1,390.00
ESMGS24-P4-RAT	Industrial Ethernet switch, Layer 2 managed, (24) electrical 10/100/1000Mbps LAN ports, IEEE802.3at PoE+, (4) gigabit SFP ports. 1RU rack mount. US power plug.	1,590.00

## Ethernet Switch Accessories

Model Number	Product Description	MSRP
<b>DIN Rail Power Supplies for PoE Switches</b>		
DR120-48	DIN rail power supply for PoE switch. 120W, 47~53VDC out, narrow temperature range.	140.00
SDR120-48	DIN rail power supply for PoE switch. 120W, 47~55VDC out, wide temperature range.	300.00
DRP240-48	DIN rail power supply for PoE switch. 240W, 47~53VDC out, narrow temperature range.	240.00
SDR240-48	DIN rail power supply for PoE switch. 240W, 48~55VDC out, wide temperature range.	480.00
DRP480-48	DIN rail power supply for PoE switch. 480W, 48~55VDC out, narrow temperature range.	490.00
SDR480-48	DIN rail power supply for PoE switch. 480W, 48~55VDC out, wide temperature range.	790.00
<b>SFP Modules, RJ-45 electrical</b>		
SFP-T	SFP module. Copper 10/100/1000Mbps RJ45, 100m range.	150.00
<b>SFP Modules, 100Base-FX, 2 Fibers</b>		
SFP-MM2	SFP module. 100Mbps, 850nm, 550m range, duplex LC connector, multi-mode, 2 fibers.	110.00
SFP-MS2-A	SFP module. 100Mbps, 1310nm, 20Km range, duplex LC connector, single mode, 2 fibers.	120.00

Model Number	Product Description	MSRP
<b>SFP Modules, 1000Mbps, 2 Fibers</b>		
SFP-GM2	SFP module. 1000Mbps, 850nm, 550m range, duplex LC connector, multi-mode, 2 fibers.	110.00
SFPV-GS2-A	SFP module. 1000Mbps, 1310nm, 20Km range, duplex LC connector, single mode, 2 fibers.	120.00
<b>SFP Modules, 1000Mbps, 1 Fiber</b>		
SFP-GS1A-A	SFP module. 1000Mbps, 1310/1550nm, 20Km range, SC connector, single mode, 1 fiber. To be paired with SFP-GS1B-A.	200.00
SFP-GS1B-A	SFP module. 1000Mbps, 1550/1310nm, 20Km range, SC connector, single mode, 1 fiber. To be paired with SFP-GS1A-A.	200.00
SFP-GS1A-B	SFP module. 1000Mbps, 1310/1550nm, 40Km range, SC connector, single mode, 1 fiber. To be paired with SFP-GS1B-B.	350.00
SFP-GS1B-B	SFP module. 1000Mbps, 1550/1310nm, 40Km range, SC connector, single mode, 1 fiber. To be paired with SFP-GS1A-B.	350.00
SFP-GS1A-C	SFP module. 1000Mbps, 1490/1550nm, 80Km range, SC connector, single mode, 1 fiber. To be paired with SFP-GS1B-C.	500.00
SFP-GS1B-C	SFP module. 1000Mbps, 1550/1490nm, 80Km range, SC connector, single mode, 1 fiber. To be paired with SFP-GS1A-C.	500.00
SFP-GS1A-D	SFP module. 1000Mbps, 1490/1550nm, 100Km range, SC connector, single mode, 1 fiber. To be paired with SFP-GS1B-D.	650.00
SFP-GS1B-D	SFP module. 1000Mbps, 1550/1490nm, 100Km range, SC connector, single mode, 1 fiber. To be paired with SFP-GS1A-D.	650.00

## Extended Ethernet

Model Number	Product Description	MSRP
<b>Extended Ethernet Modules</b>		
EE1CL-1	10/100Mbps auto-sensing Ethernet over Coax line driver, MDI/MDIX.	180.00
EE1R3	2.4RU 19" chassis card cage for up to 15 EE1CL series line drivers.	800.00
EE2CL-1	10/100Mbps auto-sensing Ethernet over Coax line driver, MDI/MDIX, PoE.	230.00
EE2CL-1-TW	10/100Mbps auto-sensing Ethernet over Twisted Pair line driver, MDI/MDIX, PoE.	235.00
GS60A-48-P1J	48V, 1.25A PoE power supply for EE200 Series Extended Ethernet line drivers.	80.00
EE-BNC2	1:2 BNC T-splitter.	10.00
EE-BNC4	1:4 BNC T-splitter.	20.00
EE-TW	BNC to 2-wire adapter.	5.00
EE2CL-RK	1RU 19" chassis card cage for up to 4 EE2CL units.	200.00
<b>Extended Ethernet Kits</b>		
EE2CL-1KT	Extended Ethernet kit. Includes two EE2CL-1 coax line drivers, one 48VDC/1.25A power supply.	500.00
EE2CL-2KT	Extended Ethernet kit. Includes three EE2CL-1 coax line drivers, one BNC T-splitter, and one 48VDC/1.25A power supply.	740.00
EE2CL-3KT	Extended Ethernet kit. Includes four EE2CL-1 coax line drivers, one 1:4 BNC splitter, and one 48VDC/1.25A power supply.	980.00
EE2CL-4KT	Extended Ethernet kit. Includes five EE2CL-1 coax line drivers, one 1:4 BNC splitter, and one 48VDC/1.25A power supply.	1,200.00
EE2CL-1KT-TW	Extended Ethernet kit. Includes two EE2CL-1-TA twisted pair line drivers, one 48VDC/1.25A power supply.	510.00
EE2CL-2KT-TW	Extended Ethernet kit. Includes three EE2CL-1-TA twisted pair line drivers, one BNC T-splitter, and one 48VDC/1.25A power supply.	760.00
EE2CL-3KT-TW	Extended Ethernet kit. Includes four EE2CL-1-TA twisted pair line drivers, one 1:4 BNC splitter, and one 48VDC/1.25A power supply.	1,010.00
EE2CL-4KT-TW	Extended Ethernet kit. Includes five EE2CL-1-TA twisted pair line drivers, one 1:4 BNC splitter, and one 48VDC/1.25A power supply.	1,240.00

## Fiber Optic Ethernet Media Converters

Model Number	Product Description	MSRP
<b>Commercial Ethernet Media Converters – 10/100Mbps, Multi-Mode</b>		
MCCL1-M2-MSA	10/100Mbps Ethernet LAN fiber optic media converter, 2 fibers, 1310nm multi-mode, 15dB optical loss budget. 4Km range. -10°C to 50°C (14°F to 122°F) operating temp. Compact module, ST connector, US power plug.	98.00
MCCL1-M1A-MSA	10/100Mbps Ethernet LAN fiber optic media converter "A" side, 1 fiber, 1310nm multi-mode, 15dB optical loss budget. 4Km range. -10°C to 50°C (14°F to 122°F) operating temp. Compact module, ST connector, US power plug.	138.00
MCCL1-M1B-MSA	10/100Mbps Ethernet LAN fiber optic media converter "B" side, 1 fiber, 1310nm multi-mode, 15dB optical loss budget. 4Km range. -10°C to 50°C (14°F to 122°F) operating temp. Compact module, ST connector, US power plug.	138.00
<b>Commercial Ethernet Media Converters – 10/100Mbps, Single Mode</b>		
MCCL1-S2-MSA	10/100Mbps Ethernet LAN fiber optic media converter, 2 fibers, 1310nm single mode, 15dB optical loss budget. 25Km range. -10°C to 50°C (14°F to 122°F) operating temp. Compact module, ST connector, US power plug.	114.00
MCCL1-S1A-MSA	10/100Mbps Ethernet LAN fiber optic media converter "A" side, 1 fiber, 1310nm single mode, 15dB optical loss budget. 25Km range. -10°C to 50°C (14°F to 122°F) operating temp. Compact module, ST connector, US power plug.	151.00
MCCL1-S1B-MSA	10/100Mbps Ethernet LAN fiber optic media converter "B" side, 1 fiber, 1310nm single mode, 15dB optical loss budget. 25Km range. -10°C to 50°C (14°F to 122°F) operating temp. Compact module, ST connector, US power plug.	151.00
<b>2RU Rack Mount for MCCL1/MCCG1 Series</b>		
FMC R2-AB	2RU 19" chassis card cage for up to 16 MCCL1 or MCCG1 media converter modules. US power plug.100-120VAC, 50/60Hz,	492.00
<b>Commercial Ethernet Media Converters – 1000Mbps, Multi-Mode</b>		
MCCG1-M2-MSA	1000Mbps Ethernet LAN fiber optic media converter, 2 fibers, 1310nm multi-mode, 15dB optical loss budget. 4Km range. -10°C to 50°C (14°F to 122°F) operating temp. Compact module, ST connector, US power plug.	197.00
MCCG1-M1A-MSA	1000Mbps Ethernet LAN fiber optic media converter "A" side, 1 fiber, 1310nm multi-mode, 15dB optical loss budget. 4Km range. -10°C to 50°C (14°F to 122°F) operating temp. Compact module, ST connector, US power plug.	295.00
MCCG1-M1B-MSA	1000Mbps Ethernet LAN fiber optic media converter "B" side, 1 fiber, 1310nm multi-mode, 15dB optical loss budget. 4Km range. -10°C to 50°C (14°F to 122°F) operating temp. Compact module, ST connector, US power plug.	295.00
<b>Commercial Ethernet Media Converters – 1000Mbps, Single Mode</b>		
MCCG1-S2-MSA	1000Mbps Ethernet LAN fiber optic media converter, 2 fibers, 1310nm single mode, 15dB optical loss budget. 25Km range. -10°C to 50°C (14°F to 122°F) operating temp. Compact module, ST connector, US power plug.	222.00
MCCG1-S1A-MSA	1000Mbps Ethernet LAN fiber optic media converter "A" side, 1 fiber, 1310nm single mode, 15dB optical loss budget. 25Km range. -10°C to 50°C (14°F to 122°F) operating temp. Compact module, ST connector, US power plug.	308.00
MCCG1-S1B-MSA	1000Mbps Ethernet LAN fiber optic media converter "B" side, 1 fiber, 1310nm single mode, 15dB optical loss budget. 25Km range. -10°C to 50°C (14°F to 122°F) operating temp. Compact module, ST connector, US power plug.	308.00
<b>2RU Rack Mount for MCCL1/MCCG1 Series</b>		
FMC R2-AB	2RU 19" chassis card cage for up to 16 MCCL1 or MCCG1 media converter modules. US power plug.100-120VAC, 50/60Hz,	492.00



Model Number	Product Description	MSRP
<b>Ethernet Media Converters – 10/100Mbps, Multi-Mode</b>		
FTL1-M2-MSA	100Mbps Ethernet LAN fiber optic media converter, 2 fibers, 1310nm multi-mode, 17dB optical loss budget. 4Km range. Compact module, ST connector, US power plug.	300.00
FTL1-M1A-MSA	10/100Mbps Ethernet LAN fiber optic media converter "A" side, 1 fiber, 1310/1550nm multi-mode, 17dB optical loss budget. 4Km range. Compact module, ST connector, US power plug.	470.00
FTL1-M1B-MSA	10/100Mbps Ethernet LAN fiber optic media converter "B" side, 1 fiber, 1310/1550nm multi-mode, 17dB optical loss budget. 4Km range. Compact module, ST connector, US power plug.	470.00
FTL2-M2A-BS	10/100Mbps dual module Ethernet LAN fiber optic media converter "A" side, 2 fibers, 1310/1550nm multi-mode, 17dB optical loss budget. 4Km range. 3RU chassis card, ST connector,	940.00
FTL2-M2B-BS	10/100Mbps dual module Ethernet LAN fiber optic media converter "B" side, 2 fibers, 1310/1550nm multi-mode, 17dB optical loss budget. 4Km range. 3RU chassis card, ST connector,	940.00
<b>Ethernet Media Converters – 10/100Mbps, Single Mode</b>		
FTL1-S2-MSA	100Mbps Ethernet LAN fiber optic media converter, 2 fibers, 1310nm single mode, 20dB optical loss budget. 40Km range. Compact module, ST connector, US power plug.	360.00
FTL1-S1A-MSA	100Mbps Ethernet LAN fiber optic media converter "A" side, 1 fiber, 1310/1550nm single mode, 20dB optical loss budget. 30Km range. Compact module, ST connector, US power plug.	550.00
FTL1-S1B-MSA	100Mbps Ethernet LAN fiber optic media converter "B" side, 1 fiber, 1310/1550nm single mode, 20dB optical loss budget. 30Km range. Compact module, ST connector, US power plug.	550.00
FTL2-S2A-BS	100Mbps dual module Ethernet LAN fiber optic media converter "A" side, 2 fibers 1310/1550nm single mode, 20dB optical loss budget. 30Km range. 3RU chassis card, ST connector,	1,100.00
FTL2-S2B-BS	100Mbps dual module Ethernet LAN fiber optic media converter "B" side, 2 fibers 1310/1550nm single mode, 20dB optical loss budget. 30Km range. 3RU chassis card, ST connector,	1,100.00
<b>Ethernet Media Converters - 1000Mbps, Multi-Mode</b>		
MCG1-M2-MSA	1000Mbps Ethernet LAN fiber optic media converter, 2 fibers, 1310nm multi-mode, 17dB optical loss budget. 2Km range. Compact module, ST connector, US power plug.	600.00
MCG1-M1A-MSA	1000Mbps Ethernet LAN fiber optic media converter "A" side, 1 fiber, 1310/1550nm multi-mode, 17dB optical loss budget. 2Km range. Compact module, ST connector, US power plug.	920.00
MCG1-M1B-MSA	1000Mbps Ethernet LAN fiber optic media converter "B" side, 1 fiber, 1310/1550nm multi-mode, 17dB optical loss budget. 2Km range. Compact module, ST connector, US power plug.	920.00
<b>Ethernet Media Converters - 1000Mbps, Single Mode</b>		
MCG1-S2-MSA	1000Mbps Ethernet LAN fiber optic media converter, 2 fibers, 1310nm single mode, 20dB optical loss budget. 40Km range. Compact module, ST connector, US power plug.	706.00
MCG1-S1A-MSA	1000Mbps Ethernet LAN fiber optic media converter "A" side, 1 fiber, 1310/1550nm single mode, 20dB optical loss budget. 30Km range. Compact module, ST connector, US power plug.	940.00
MCG1-S1B-MSA	1000Mbps Ethernet LAN fiber optic media converter "B" side, 1 fiber, 1310/1550nm single mode, 20dB optical loss budget. 30Km range. Compact module, ST connector, US power plug.	940.00
<b>Ethernet Media Converters - 1000Mbps, 1 SFP combo port</b>		
MCG1-P2-MSA	1000Mbps Ethernet LAN fiber optic media converter, 1 SFP port. Compact module, US power plug.	500.00

Model Number	Product Description	MSRP
<b>Ethernet PoE Media Converters – 10/100Mbps, Multi-Mode</b>		
<b>FTLS1-M2-WSA</b>	100Base-FX PoE Ethernet LAN fiber optic media converter, 2 fibers, 1310nm multi-mode, 17dB optical loss budget. 4Km range. Desktop/wall-mount, ST connector, US power plug.	<b>600.00</b>
<b>FTLS1-M1A-WSA</b>	10/100Mbps PoE Ethernet LAN fiber optic media converter "A" side, 1 fiber, 1310/1550nm multi-mode, 17dB optical loss budget. 4Km range. Desktop/wall-mount, ST connector, US power plug.	<b>740.00</b>
<b>FTLS1-M1B-WSA</b>	10/100Mbps PoE Ethernet LAN fiber optic media converter "B" side, 1 fiber, 1310/1550nm multi-mode, 17dB optical loss budget. 4Km range. Desktop/wall-mount, ST connector, US power plug.	<b>740.00</b>
<b>Ethernet PoE Media Converters – 10/100Mbps, Single Mode</b>		
<b>FTLS1-S2-WSA</b>	100Mbps PoE Ethernet LAN fiber optic media converter, 2 fibers, 1310nm single mode, 20dB optical loss budget. 40Km range. Desktop/wall-mount, ST connector, US power plug.	<b>680.00</b>
<b>FTLS1-S1A-WSA</b>	100Mbps PoE Ethernet LAN fiber optic media converter "A" side, 1 fiber, 1310/1550nm single mode, 20dB optical loss budget. 30Km range. Desktop/wall-mount, ST connector, US power plug.	<b>760.00</b>
<b>FTLS1-S1B-WSA</b>	100Mbps PoE Ethernet LAN fiber optic media converter "B" side, 1 fiber, 1310/1550nm single mode, 20dB optical loss budget. 30Km range. Desktop/wall-mount, ST connector, US power plug.	<b>760.00</b>
<b>Ethernet PoE Media Converters - 1000Mbps, Multi-Mode</b>		
<b>MCGS1-M2-WSA</b>	1000Mbps PoE Ethernet LAN fiber optic media converter, 2 fibers, 1310nm multi-mode, 17dB optical loss budget. 2Km range. Desktop/wall-mount, ST connector, US power plug.	<b>900.00</b>
<b>MCGS1-M1A-WSA</b>	1000Mbps PoE Ethernet LAN fiber optic media converter "A" side, 1 fiber, 1310/1550nm multi-mode, 17dB optical loss budget. 2Km range. Desktop/wall-mount, ST connector, US power plug.	<b>1,220.00</b>
<b>MCGS1-M1B-WSA</b>	1000Mbps PoE Ethernet LAN fiber optic media converter "B" side, 1 fiber, 1310/1550nm multi-mode, 17dB optical loss budget. 2Km range. Desktop/wall-mount, ST connector, US power plug.	<b>1,220.00</b>
<b>Ethernet PoE Media Converters - 1000Mbps, Single Mode</b>		
<b>MCGS1-S2-WSA</b>	1000Mbps PoE Ethernet LAN fiber optic media converter, 2 fibers, 1310nm single mode, 20dB optical loss budget. 40Km range. Desktop/wall-mount, ST connector, US power plug.	<b>1,020.00</b>
<b>MCGS1-S1A-WSA</b>	1000Mbps PoE Ethernet LAN fiber optic media converter "A" side, 1 fiber, 1310/1550nm single mode, 20dB optical loss budget. 30Km range. Desktop/wall-mount, ST connector, US power plug.	<b>1,340.00</b>
<b>MCGS1-S1B-WSA</b>	1000Mbps PoE Ethernet LAN fiber optic media converter "B" side, 1 fiber, 1310/1550nm single mode, 20dB optical loss budget. 30Km range. Desktop/wall-mount, ST connector, US power plug.	<b>1,340.00</b>



## Fiber Optic Products

### Video Only

Model Number	Product Description	MSRP
<b>Digital 8-bit Video Only, Multi-Mode</b>		
FDVA1-M1T-MSA	1-ch point-to-point simplex video transmitter, 1 fiber, 1310nm multi-mode, 12dB optical loss budget. Compact module, ST connector, US power plug.	192.00
FDVA1-M1R-MSA	1-ch point-to-point simplex video receiver, 1 fiber, 1310nm multi-mode, 12dB optical loss budget. Compact module, ST connector, US power plug.	192.00
FDVA2-M2T-WSA	2-ch point-to-point simplex video transmitter, 2 fibers, 1310nm multi-mode, 12dB optical loss budget. Desktop/wall-mount, ST connector, US power plug.	384.00
FDVA2-M2R-WSA	2-ch point-to-point simplex video receiver, 2 fibers, 1310nm multi-mode, 12dB optical loss budget. Desktop/wall-mount, ST connector, US power plug.	384.00
FDVA4-M4T-WSA	4-ch point-to-point simplex video transmitter, 4 fibers, 1310nm multi-mode, 12dB optical loss budget. Desktop/wall-mount, ST connector, US power plug.	768.00
FDVA4-M4R-WSA	4-ch point-to-point simplex video receiver, 4 fibers, 1310nm multi-mode, 12dB optical loss budget. Desktop/wall-mount, ST connector, US power plug.	768.00
<b>Digital 8-bit Video Only, Single Mode</b>		
FDVA1-S1T-MSA	1-ch point-to-point simplex video transmitter, 1 fiber, 1310nm single mode, 15dB optical loss budget. Compact module, ST connector, US power plug.	400.00
FDVA1-S1R-MSA	1-ch point-to-point simplex video receiver, 1 fiber, 1310nm single mode, 15dB optical loss budget. Compact module, ST connector, US power plug.	400.00
FDVA2-S2T-WSA	2-ch point-to-point simplex video transmitter, 2 fibers, 1310nm single mode, 15dB optical loss budget. Desktop/wall-mount, ST connector, US power plug.	800.00
FDVA2-S2R-WSA	2-ch point-to-point simplex video receiver, 2 fibers, 1310nm single mode, 15dB optical loss budget. Desktop/wall-mount, ST connector, US power plug.	800.00
FDVA4-S4T-WSA	4-ch point-to-point simplex video transmitter, 4 fibers, 1310nm single mode, 15dB optical loss budget. Desktop/wall-mount, ST connector, US power plug.	1,600.00
FDVA4-S4R-WSA	4-ch point-to-point simplex video receiver, 4 fibers, 1310nm single mode, 15dB optical loss budget. Desktop/wall-mount, ST connector, US power plug.	1,600.00
<b>Digital 10-bit Video Only, Multi-Mode</b>		
FDHA1-M1T-MSA	1-ch point-to-point simplex 10-bit video transmitter, 1 fiber, 1310nm multi-mode, 12dB optical loss budget. Compact module, ST connector, US power plug.	640.00
FDHA1-M1R-MSA	1-ch point-to-point simplex 10-bit video receiver, 1 fiber, 1310nm multi-mode, 12dB optical loss budget. Compact module, ST connector, US power plug.	640.00
FDHA2-M2T-WSA	2-ch point-to-point simplex 10-bit video transmitter, 2 fibers, 1310nm multi-mode, 12dB optical loss budget. Desktop/wall-mount, ST connector, US power plug.	1,280.00
FDHA2-M2R-WSA	2-ch point-to-point simplex 10-bit video receiver, 2 fibers, 1310nm multi-mode, 12dB optical loss budget. Desktop/wall-mount, ST connector, US power plug.	1,280.00
FDHA4-M4T-WSA	4-ch point-to-point simplex 10-bit video transmitter, 4 fibers, 1310nm multi-mode, 12dB optical loss budget. Desktop/wall-mount, ST connector, US power plug.	2,560.00
FDHA4-M4R-WSA	4-ch point-to-point simplex 10-bit video receiver, 4 fibers, 1310nm multi-mode, 12dB optical loss budget. Desktop/wall-mount, ST connector, US power plug.	2,560.00

Model Number	Product Description	MSRP
<b>Digital 10-bit Video Only, Single Mode</b>		
FDHA1-S1T-MSA	1-ch point-to-point simplex 10-bit video transmitter, 1 fiber, 1310nm single mode, 15dB optical loss budget. Compact module, ST connector, US power plug.	736.00
FDHA1-S1R-MSA	1-ch point-to-point simplex 10-bit video receiver, 1 fiber, 1310nm single mode, 15dB optical loss budget. Compact module, ST connector, US power plug.	736.00
FDHA2-S2T-WSA	2-ch point-to-point simplex 10-bit video transmitter, 2 fibers, 1310nm single mode, 15dB optical loss budget. Desktop/wall-mount, ST connector, US power plug.	1,472.00
FDHA2-S2R-WSA	2-ch point-to-point simplex 10-bit video receiver, 2 fibers, 1310nm single mode, 15dB optical loss budget. Desktop/wall-mount, ST connector, US power plug.	1,472.00
FDHA4-S4T-WSA	4-ch point-to-point simplex 10-bit video transmitter, 4 fibers, 1310nm single mode, 15dB optical loss budget. Desktop/wall-mount, ST connector, US power plug.	2,944.00
FDHA4-S4R-WSA	4-ch point-to-point simplex 10-bit video receiver, 4 fibers, 1310nm single mode, 15dB optical loss budget. Desktop/wall-mount, ST connector, US power plug.	2,944.00

## Video - Multiplexed

Model Number	Product Description	MSRP
<b>Digital 8-bit Multiplexed Video Only, Multi-Mode</b>		
FDVA4-M1T-WSA	4-ch point-to-point simplex video transmitter, 1 fiber, 1310nm multi-mode, 12dB optical loss budget. Desktop/wall-mount, ST connector, US power plug.	1,100.00
FDVA4-M1R-WSA	4-ch point-to-point simplex video receiver, 1 fiber, 1310nm multi-mode, 12dB optical loss budget. Desktop/wall-mount, ST connector, US power plug.	1,100.00
FDVA8-M1T-WSA	8-ch point-to-point simplex video transmitter, 1 fiber, 1310nm multi-mode, 12dB optical loss budget. Desktop/wall-mount, ST connector, US power plug.	2,000.00
FDVA8-M1R-WSA	8-ch point-to-point simplex video receiver, 1 fiber, 1310nm multi-mode, 12dB optical loss budget. Desktop/wall-mount, ST connector, US power plug.	2,000.00
FPVG8-MT	8-ch point-to-point simplex video transmitter, 1 fiber, 1310nm multi-mode, 12dB optical loss budget. Desktop/wall-mount, ST connector, US power plug.	2,000.00
FPVG8-MR	8-ch point-to-point simplex video receiver, 1 fiber, 1310nm multi-mode, 12dB optical loss budget. Desktop/wall-mount, ST connector, US power plug.	2,000.00
FPVG16-MT-R	16-ch point-to-point simplex video transmitter, 1 fiber, multi-mode, 12dB optical loss budget. 1RU rack mounted, ST connector, US power plug.	5,100.00
FPVG16-MR-R	16-ch point-to-point simplex video receiver, 1 fiber, multi-mode, 12dB optical loss budget. 1RU rack mounted, ST connector, US power plug.	5,100.00
<b>Digital 8-bit Multiplexed Video Only, Single Mode</b>		
FDVA4-S1T-WSA	4-ch point-to-point simplex video transmitter, 1 fiber, 1310nm single mode, 15dB optical loss budget. Desktop/wall-mount, ST connector, US power plug.	1,570.00
FDVA4-S1R-WSA	4-ch point-to-point simplex video receiver, 1 fiber, 1310nm single mode, 15dB optical loss budget. Desktop/wall-mount, ST connector, US power plug.	1,570.00
FDVA8-S1T-WSA	8-ch point-to-point simplex video transmitter, 1 fiber, 1310nm single mode, 15dB optical loss budget. Desktop/wall-mount, ST connector, US power plug.	2,500.00
FDVA8-S1R-WSA	8-ch point-to-point simplex video receiver, 1 fiber, 1310nm single mode, 15dB optical loss budget. Desktop/wall-mount, ST connector, US power plug.	2,500.00
FPVG8-ST	8-ch point-to-point simplex video transmitter, 1 fiber, 1310nm single mode, 15dB optical loss budget. Desktop/wall-mount, ST connector, US power plug.	2,500.00
FPVG8-SR	8-ch point-to-point simplex video receiver, 1 fiber, 1310nm single mode, 15dB optical loss budget. Desktop/wall-mount, ST connector, US power plug.	2,500.00

Model Number	Product Description	MSRP
FPVG16-ST-R	16-ch point-to-point simplex video transmitter, 1 fiber, 1310nm single mode, 15dB optical loss budget. 1RU rack mounted, ST connector, US power plug.	6,300.00
FPVG16-SR-R	16-ch point-to-point simplex video receiver, 1 fiber, 1310nm single mode, 15dB optical loss budget. 1RU rack mounted, ST connector, US power plug.	6,300.00
FPVA24-ST-R	24-ch point-to-point simplex video transmitter, 1 fiber, 1310nm single mode, 20dB optical loss budget. 2RU rack mounted, ST connector, US power plug.	14,800.00
FPVA24-SR-R	24-ch point-to-point simplex video receiver, 1 fiber, 1310nm single mode, 20dB optical loss budget. 2RU rack mounted, ST connector, US power plug.	14,800.00
FPVA32-ST-R	32-ch point-to-point simplex video transmitter, 1 fiber, 1310nm single mode, 20dB optical loss budget. 2RU rack mounted, ST connector, US power plug.	19,900.00
FPVA32-SR-R	32-ch point-to-point simplex video receiver, 1 fiber, 1310nm single mode, 20dB optical loss budget. 2RU rack mounted, ST connector, US power plug.	19,900.00
<b>Digital 10-bit Multiplexed Video Only, Multi-Mode</b>		
FDHA4-M1T-WSA	4-ch point-to-point simplex 10-bit video transmitter, 1 fiber, 1310nm multi-mode, 12dB optical loss budget. Desktop/wall-mount, ST connector, US power plug.	1,580.00
FDHA4-M1R-WSA	4-ch point-to-point simplex 10-bit video receiver, 1 fiber, 1310nm multi-mode, 12dB optical loss budget. Desktop/wall-mount, ST connector, US power plug.	1,580.00
<b>Digital 10-bit Multiplexed Video Only, Single Mode</b>		
FDHA4-S1T-WSA	4-ch point-to-point simplex 10-bit video transmitter, 1 fiber, 1310nm single mode, 15dB optical loss budget. Desktop/wall-mount, ST connector, US power plug.	2,325.00
FDHA4-S1R-WSA	4-ch point-to-point simplex 10-bit video receiver, 1 fiber, 1310nm single mode, 15dB optical loss budget. Desktop/wall-mount, ST connector, US power plug.	2,325.00

## Video with Bi-Directional Data

Model Number	Product Description	MSRP
<b>Digital 8-bit Video with Duplex Data, Multi-Mode</b>		
FDVA1-DB1-M1T-MSA	1-ch point-to-point simplex video transmitter, 1-ch duplex data, 1 fiber, 1310/1550nm multi-mode, 12dB optical loss budget. Compact module, ST connector, US power plug.	450.00
FDVA1-DB1-M1R-MSA	1-ch point-to-point simplex video receiver, 1-ch duplex data, 1 fiber, 1310/1550nm multi-mode, 12dB optical loss budget. Compact module, ST connector, US power plug.	450.00
FDVA2-DB2-M2T-WSA	Dual point-to-point simplex video transmitter, duplex data, 2 fibers, 1310/1550nm multi-mode, 12dB optical loss budget. Desktop/wall-mount, ST connector, US power plug.	900.00
FDVA2-DB2-M2R-WSA	Dual point-to-point simplex video receiver, duplex data, 2 fibers, 1310/1550nm multi-mode, 12dB optical loss budget. Desktop/wall-mount, ST connector, US power plug.	900.00
FDVA4-DB1-M1T-WSA	4-ch point-to-point simplex video transmitter, 1-ch duplex data, 1 fiber, 1310/1550nm multi-mode, 12dB optical loss budget. Desktop/wall-mount, ST connector, US power plug.	1,450.00
FDVA4-DB1-M1R-WSA	4-ch point-to-point simplex video receiver, 1-ch duplex data, 1 fiber, 1310/1550nm multi-mode, 12dB optical loss budget. Desktop/wall-mount, ST connector, US power plug.	1,450.00
FPVG8-DB1-MT	8-ch point-to-point simplex video transmitter, 1-ch bi-directional RS232/422/485 data1 fiber, multi-mode, 12dB optical loss budget. Desktop/wall-mount, ST connector, US power plug.	2,400.00
FPVG8-DB1-MR	8-ch point-to-point simplex video receiver, 1-ch bi-directional RS232/422/485 data1 fiber, multi-mode, 12dB optical loss budget. Desktop/wall-mount, ST connector, US power plug.	2,400.00
FPVG16-DB1-MT-R	16-ch point-to-point simplex video transmitter, 1-ch bi-directional RS232/422/485 data1 fiber, multi-mode, 12dB optical loss budget. 1RU rack mounted, ST connector, US power plug.	5,500.00
FPVG16-DB1-MR-R	16-ch point-to-point simplex video receiver, 1-ch bi-directional RS232/422/485 data1 fiber, multi-mode, 12dB optical loss budget. 1RU rack mounted, ST connector, US power plug.	5,500.00

Model Number	Product Description	MSRP
<b>Digital 8-bit Video with Duplex Data, Single Mode</b>		
FDVA1-DB1-S1T-MSA	1-ch point-to-point simplex video transmitter, 1-ch duplex data, 1 fiber, 1310/1550nm single mode, 15dB optical loss budget. Compact module, ST connector, US power plug.	800.00
FDVA1-DB1-S1R-MSA	1-ch point-to-point simplex video receiver, 1-ch duplex data, 1 fiber, 1310/1550nm single mode, 15dB optical loss budget. Compact module, ST connector, US power plug.	800.00
FDVA2-DB2-S2T-WSA	Dual point-to-point simplex video transmitter, duplex data, 2 fibers, 1310/1550nm single mode, 15dB optical loss budget. Desktop/wall-mount, ST connector, US power plug.	1,600.00
FDVA2-DB2-S2R-WSA	Dual point-to-point simplex video receiver, duplex data, 2 fibers, 1310/1550nm single mode, 15dB optical loss budget. Desktop/wall-mount, ST connector, US power plug.	1,600.00
FDVA4-DB1-S1T-WSA	4-ch point-to-point simplex video transmitter, 1-ch duplex data, 1 fiber, 1310/1550nm single mode, 15dB optical loss budget. Desktop/wall-mount, ST connector, US power plug.	1,850.00
FDVA4-DB1-S1R-WSA	4-ch point-to-point simplex video receiver, 1-ch duplex data, 1 fiber, 1310/1550nm single mode, 15dB optical loss budget. Desktop/wall-mount, ST connector, US power plug.	1,850.00
FPVG8-DB1-ST	8-ch point-to-point simplex video transmitter, 1-ch bi-directional RS232/422/485 data1 fiber, single mode, 15dB optical loss budget. Desktop/wall-mount, ST connector, US power plug.	2,900.00
FPVG8-DB1-SR	8-ch point-to-point simplex video receiver, 1-ch bi-directional RS232/422/485 data1 fiber, single mode, 15dB optical loss budget. Desktop/wall-mount, ST connector, US power plug.	2,900.00
FPVG16-DB1-ST-R	16-ch point-to-point simplex video transmitter, 1-ch bi-directional RS232/422/485 data1 fiber, single mode, 15dB optical loss budget. 1RU rack mounted, ST connector, US power plug.	6,800.00
FPVG16-DB1-SR-R	16-ch point-to-point simplex video receiver, 1-ch bi-directional RS232/422/485 data1 fiber, single mode, 15dB optical loss budget. 1RU rack mounted, ST connector, US power plug.	6,800.00
FPVB24-DB1-ST-R	24-ch point-to-point simplex video transmitter, 1-ch bi-directional RS232/422/485 data1 fiber, single mode, 18dB optical loss budget. 2RU rack mounted, ST connector, US power plug.	15,900.00
FPVB24-DB1-SR-R	24-ch point-to-point simplex video receiver, 1-ch bi-directional RS232/422/485 data1 fiber, single mode, 18dB optical loss budget. 2RU rack mounted, ST connector, US power plug.	15,900.00
FPVB32-DB1-ST-R	32-ch point-to-point simplex video transmitter, 1-ch bi-directional RS232/422/485 data1 fiber, single mode, 18dB optical loss budget. 2RU rack mounted, ST connector, US power plug.	20,900.00
FPVB32-DB1-SR-R	32-ch point-to-point simplex video receiver, 1-ch bi-directional RS232/422/485 data1 fiber, single mode, 18dB optical loss budget. 2RU rack mounted, ST connector, US power plug.	20,900.00
<b>Digital 10-bit Video with Duplex Data, Multi-Mode</b>		
FDHA1-DB1-M1T-MSA	1-ch point-to-point simplex 10-bit video transmitter, 1-ch duplex data, 1 fiber, 1310/1550nm multi-mode, 12dB optical loss budget. Compact module, ST connector, US power plug.	650.00
FDHA1-DB1-M1R-MSA	1-ch point-to-point simplex 10-bit video receiver, 1-ch duplex data, 1 fiber, 1310/1550nm multi-mode, 12dB optical loss budget. Compact module, ST connector, US power plug.	650.00
FDHA2-DB2-M2T-WSA	2-ch point-to-point simplex 10-bit video transmitter, 2-ch duplex data, 2 fibers ST connector, 1310/1550nm multi-mode, 12dB optical loss budget. Desktop/wall-mount, ST connector, US power plug.	1,300.00
FDHA2-DB2-M2R-WSA	2-ch point-to-point simplex 10-bit video receiver, 2-ch duplex data, 2 fibers ST connector, 1310/1550nm multi-mode, 12dB optical loss budget. Desktop/wall-mount, ST connector, US power plug.	1,300.00
FDHA4-DB1-M1T-WSA	4-ch point-to-point simplex 10-bit video transmitter, 1-ch duplex data, 1 fiber, 1310/1550nm multi-mode, 12dB optical loss budget. Desktop/wall-mount, ST connector, US power plug.	1,800.00
FDHA4-DB1-M1R-WSA	4-ch point-to-point simplex 10-bit video receiver, 1-ch duplex data, 1 fiber, 1310/1550nm multi-mode, 12dB optical loss budget. Desktop/wall-mount, ST connector, US power plug.	1,800.00

Model Number	Product Description	MSRP
<b>Digital 10-bit Video with Duplex Data, Single Mode</b>		
FDHA1-DB1-S1T-MSA	1-ch point-to-point simplex 10-bit video transmitter, 1-ch duplex data, 1 fiber, 1310/1550nm single mode, 15dB optical loss budget. Compact module, ST connector, US power plug.	1,000.00
FDHA1-DB1-S1R-MSA	1-ch point-to-point simplex 10-bit video receiver, 1-ch duplex data, 1 fiber, 1310/1550nm single mode, 15dB optical loss budget. Compact module, ST connector, US power plug.	1,000.00
FDHA2-DB2-S2T-WSA	2-ch point-to-point simplex 10-bit video transmitter, 2-ch duplex data, 2 fibers ST connector, 1310/1550nm single mode, 15dB optical loss budget. Desktop/wall-mount, ST connector, US power plug.	2,000.00
FDHA2-DB2-S2R-WSA	2-ch point-to-point simplex 10-bit video receiver, 2-ch duplex data, 2 fibers ST connector, 1310/1550nm single mode, 15dB optical loss budget. Desktop/wall-mount, ST connector, US power plug.	2,000.00
FDHA4-DB1-S1T-WSA	4-ch point-to-point simplex 10-bit video transmitter, 1-ch duplex data, 1 fiber, 1310/1550nm single mode, 15dB optical loss budget. Desktop/wall-mount, ST connector, US power plug.	2,200.00
FDHA4-DB1-S1R-WSA	4-ch point-to-point simplex 10-bit video receiver, 1-ch duplex data, 1 fiber, 1310/1550nm single mode, 15dB optical loss budget. Desktop/wall-mount, ST connector, US power plug.	2,200.00

### Video with Bi-Directional Data and Contact Closures

Model Number	Product Description	MSRP
<b>Digital 8-bit Video with Duplex Data, Contact Closures, Multi-Mode</b>		
FDVA1-DB1-IB1-M1T-MSA	1-ch point-to-point simplex video transmitter, 1-ch duplex data, 1-ch duplex contact closure, 1 fiber, 1310/1550nm multi-mode, 12dB optical loss budget. Compact module, ST connector, US power plug.	580.00
FDVA1-DB1-IB1-M1R-MSA	1-ch point-to-point simplex video receiver, 1-ch duplex data, 1-ch duplex contact closure, 1 fiber, 1310/1550nm multi-mode, 12dB optical loss budget. Compact module, ST connector, US power plug.	580.00
<b>Digital 8-bit Video with Duplex Data, Contact Closures, Single Mode</b>		
FDVA1-DB1-IB1-S1T-MSA	1-ch point-to-point simplex video transmitter, 1-ch duplex data, 1-ch duplex contact closure, 1 fiber, 1310/1550nm single mode, 15dB optical loss budget. Compact module, ST connector, US power plug.	950.00
FDVA1-DB1-IB1-S1R-MSA	1-ch point-to-point simplex video receiver, 1-ch duplex data, 1-ch duplex contact closure, 1 fiber, 1310/1550nm single mode, 15dB optical loss budget. Compact module, ST connector, US power plug.	950.00
<b>Digital 10-bit Video with Duplex Data, Contact Closures, Multi-Mode</b>		
FDHA1-DB1-IB1-M1T-MSA	1-ch point-to-point simplex 10-bit video transmitter, 1-ch duplex data, 1-ch duplex contact closure, 1 fiber, 1310/1550nm multi-mode, 12dB optical loss budget. Compact module, ST connector, US power plug.	800.00
FDHA1-DB1-IB1-M1R-MSA	1-ch point-to-point simplex 10-bit video receiver, 1-ch duplex data, 1-ch duplex contact closure, 1 fiber, 1310/1550nm multi-mode, 12dB optical loss budget. Compact module, ST connector, US power plug.	800.00
<b>Digital 10-bit Video with Duplex Data, Contact Closures, Single Mode</b>		
FDHA1-DB1-IB1-S1T-MSA	1-ch point-to-point simplex 10-bit video transmitter, 1-ch duplex data, 1-ch duplex contact closure, 1 fiber, 1310/1550nm single mode, 15dB optical loss budget. Compact module, ST connector, US power plug.	1,100.00
FDHA1-DB1-IB1-S1R-MSA	1-ch point-to-point simplex 10-bit video receiver, 1-ch duplex data, 1-ch duplex contact closure, 1 fiber, 1310/1550nm single mode, 15dB optical loss budget. Compact module, ST connector, US power plug.	1,100.00

### Video with Contact Closures

Model Number	Product Description	MSRP
<b>Digital 8-bit Video with Simplex Contact Closures, Multi-Mode</b>		
FDVA1-IA1-M1T-MSA	1-ch point-to-point simplex video transmitter, 1-ch simplex contact closure, 1 fiber, 1310/1550nm multi-mode, 12dB optical loss budget. Compact module, ST connector, US power plug.	300.00
FDVA1-IA1-M1R-MSA	1-ch point-to-point simplex video receiver, 1-ch simplex contact closure, 1 fiber, 1310/1550nm multi-mode, 12dB optical loss budget. Compact module, ST connector, US power plug.	300.00
FDVA2-IA2-M2T-WSA	Dual point-to-point simplex video transmitter, simplex contact closure, 2 fibers, 1310nm multi-mode, 12dB optical loss budget. Desktop/wall-mount, ST connector, US power plug.	600.00
FDVA2-IA2-M2R-WSA	Dual point-to-point simplex video receiver, simplex contact closure, 2 fibers, 1310nm multi-mode, 12dB optical loss budget. Desktop/wall-mount, ST connector, US power plug.	600.00



Model Number	Product Description	MSRP
<b>Digital 8-bit Video with Simplex Contact Closures, Single Mode</b>		
FDVA1-IA1-S1T-MSA	1-ch point-to-point simplex video transmitter, 1-ch simplex contact closure, 1 fiber, 1310/1550nm single mode, 15dB optical loss budget. Compact module, ST connector, US power plug.	880.00
FDVA1-IA1-S1R-MSA	1-ch point-to-point simplex video receiver, 1-ch simplex contact closure, 1 fiber, 1310/1550nm single mode, 15dB optical loss budget. Compact module, ST connector, US power plug.	880.00
FDVA2-IA2-S2T-WSA	Dual point-to-point simplex video transmitter, simplex contact closure, 2 fibers, 1310nm single mode, 15dB optical loss budget. Desktop/wall-mount, ST connector, US power plug.	1,760.00
FDVA2-IA2-S2R-WSA	Dual point-to-point simplex video receiver, simplex contact closure, 2 fibers, 1310nm single mode, 15dB optical loss budget. Desktop/wall-mount, ST connector, US power plug.	1,760.00

### Video with Return Simplex Data

Model Number	Product Description	MSRP
<b>Digital 8-bit Video with Return Simplex Data, Multi-Mode</b>		
FDVA1-DC1-M1T-MSA	1-ch point-to-point simplex video transmitter, 1-ch RS-422 data receiver, 1 fiber, 1310nm multi-mode, 12dB optical loss budget. Compact module, ST connector, US power plug.	390.00
FDVA1-DC1-M1R-MSA	1-ch point-to-point simplex video receiver, 1-ch RS-422 data transmitter, 1 fiber, 1310nm multi-mode, 12dB optical loss budget. Compact module, ST connector, US power plug.	390.00
<b>Digital 8-bit Video with Return Simplex Data, Single Mode</b>		
FDVA1-DC1-S1T-MSA	1-ch point-to-point simplex video transmitter, 1-ch RS-422 data receiver, 1 fiber, 1310nm single mode, 15dB optical loss budget. Compact module, ST connector, US power plug.	700.00
FDVA1-DC1-S1R-MSA	1-ch point-to-point simplex video receiver, 1-ch RS-422 data transmitter, 1 fiber, 1310nm single mode, 15dB optical loss budget. Compact module, ST connector, US power plug.	700.00

### Video with Up-The-Coax Control

Model Number	Product Description	MSRP
<b>Digital Video with Up-the-Coax PTZ Control, Multi-Mode</b>		
FCHA1-M1T-WSA	1-ch point-to-point simplex video with up-the-coax telemetry transmitter, 2-ch duplex contact closures, 1 fiber, 1310/1550nm multi-mode, 12dB optical loss budget, ~4km range. Desktop/wall-mount, ST connector, US power plug.	592.00
FCHA1-M1R-WSA	1-ch point-to-point simplex video with up-the-coax telemetry receiver, 2-ch duplex contact closures, 1 fiber, 1310/1550nm multi-mode, 12dB optical loss budget, ~4km range. Desktop/wall-mount, ST connector, US power plug.	592.00
FCHA2-M2R-WSA	Dual point-to-point simplex video with up-the-coax telemetry receivers, 2 fibers, 1310/1550nm multi-mode, 12dB optical loss budget, ~4km range. Desktop/wall-mount, ST connector, US power plug.	1,184.00
FCHA1-DB1-M1T-PS	1-ch point-to-point simplex video with up-the-coax telemetry transceiver, 1 fiber, 1310/1550nm multi-mode, 12dB optical loss budget, ~4km range. In-dome plug-in card.	600.00
FCHA1-DB1-M1R-WSA	1-ch point-to-point simplex video with up-the-coax telemetry transceiver, 1 fiber, 1310/1550nm multi-mode, 12dB optical loss budget, ~4km range. Desktop/wall-mount, ST connector, US power plug.	700.00
<b>Digital Video with Up-the-Coax PTZ Control, Single Mode</b>		
FCHA1-S1T-WSA	1-ch point-to-point simplex video with up-the-coax telemetry transmitter, 2-ch duplex contact closures, 1 fiber, 1310/1550nm single mode, 15dB optical loss budget, ~30km range. Desktop/wall-mount, ST connector, US power plug.	900.00
FCHA1-S1R-WSA	1-ch point-to-point simplex video with up-the-coax telemetry receiver, 2-ch duplex contact closures, 1 fiber, 1310/1550nm single mode, 15dB optical loss budget, ~30km range. Desktop/wall-mount, ST connector, US power plug.	900.00
FCHA2-S2R-WSA	Dual point-to-point simplex video with up-the-coax telemetry receivers, 2 fibers, 1310/1550nm single mode, 15dB optical loss budget, ~30km range. Desktop/wall-mount, ST connector, US power plug.	1,800.00

Model Number	Product Description	MSRP
FCHA1-DB1-S1T-PS	1-ch point-to-point simplex video with up-the-coax telemetry transmitter, 1 fiber, 1310/1550nm single mode, 15dB optical loss budget, ~30km range. In-dome plug-in card.	800.00
FCHA1-DB1-S1R-WSA	1-ch point-to-point simplex video with up-the-coax telemetry transceiver, 1 fiber, 1310/1550nm single mode, 15dB optical loss budget, ~30km range. Desktop/wall-mount, ST connector, US power plug.	900.00

## Data

Model Number	Product Description	MSRP
<b>Multiprotocol Data Transceivers, Multi-Mode</b>		
FDDB1-M1T-MSA	1-ch point-to-point duplex RS232/422/485 data transmitter, 1 fiber, 1310/1550nm multi-mode, 12dB optical loss budget. Compact module, ST connector, US power plug.	390.00
FDDB1-M1R-MSA	1-ch point-to-point duplex RS232/422/485 data receiver, 1 fiber, 1310/1550nm multi-mode, 12dB optical loss budget. Compact module, ST connector, US power plug.	390.00
<b>Multiprotocol Data Transceivers, Single Mode</b>		
FDDB1-S1T-MSA	1-ch point-to-point duplex RS232/422/485 data transmitter, 1 fiber, 1310/1550nm single mode, 15dB optical loss budget. Compact module, ST connector, US power plug.	650.00
FDDB1-S1R-MSA	1-ch point-to-point duplex RS232/422/485 data receiver, 1 fiber, 1310/1550nm single mode, 15dB optical loss budget. Compact module, ST connector, US power plug.	650.00
<b>Data Bus - Multi-Mode</b>		
FTD-M2-WSA	1-ch cascaded bus duplex RS232/422/485 data end node, 2 fibers, multi-mode transceiver. Desktop/wall-mount, ST connector, US power plug.	400.00
FTDB-M2-WSA	1-ch cascaded bus duplex RS232/422/485 data, 2 fibers, multi-mode transceiver. Desktop/wall-mount, ST connector, US power plug.	800.00
FTD-M1A-WSA	1-ch cascaded bus duplex RS232/422/485 data end node, 1 fiber, multi-mode transceiver, "A" end. Desktop/wall-mount, ST connector, US power plug.	500.00
FTD-M1B-WSA	1-ch cascaded bus duplex RS232/422/485 data end node, 1 fiber, multi-mode transceiver, "B" end. Desktop/wall-mount, ST connector, US power plug.	500.00
FTDB-M1A-WSA	1-ch cascaded bus duplex RS232/422/485 data, 1 fiber, multi-mode transceiver, "A" end. Desktop/wall-mount, ST connector, US power plug.	1,280.00
FTDB-M1B-WSA	1-ch cascaded bus duplex RS232/422/485 data, 1 fiber, multi-mode transceiver, "B" end. Desktop/wall-mount, ST connector, US power plug.	1,280.00
<b>Data Bus - Single Mode</b>		
FTD-S2-WSA	1-ch cascaded bus duplex RS232/422/485 data end node, 2 fibers, single mode transceiver. Desktop/wall-mount, ST connector, US power plug.	650.00
FTDB-S2-WSA	1-ch cascaded bus duplex RS232/422/485 data, 2 fibers, single mode transceiver. Desktop/wall-mount, ST connector, US power plug.	1,200.00
FTD-S1A-WSA	1-ch cascaded bus duplex RS232/422/485 data end node, 1 fiber, single mode transceiver, "A" end. Desktop/wall-mount, ST connector, US power plug.	1,000.00
FTD-S1B-WSA	1-ch cascaded bus duplex RS232/422/485 data end node, 1 fiber, single mode transceiver, "B" end. Desktop/wall-mount, ST connector, US power plug.	1,000.00
FTDB-S1A-WSA	1-ch cascaded bus duplex RS232/422/485 data, 1 fiber, single mode transceiver, "A" end. Desktop/wall-mount, ST connector, US power plug.	1,870.00
FTDB-S1B-WSA	1-ch cascaded bus duplex RS232/422/485 data, 1 fiber, single mode transceiver, "B" end. Desktop/wall-mount, ST connector, US power plug.	1,870.00

## Data – Self Healing Ring

Model Number	Product Description	MSRP
<b>Data Self-Healing Ring - Multi-Mode</b>		
FTDR-M2-WSA	RS232/422/485 multi-drop self healing ring, 2 fibers, multi-mode. Desktop/wall-mount, ST connector, US power plug.	1,400.00
<b>Data Self-Healing Ring - Single Mode</b>		
FTDR-S2-WSA	RS232/422/485 multi-drop self healing ring, 2 fibers, single mode. Desktop/wall-mount, ST connector, US power plug.	2,000.00

## CAN Bus Data Transceivers

Model Number	Product Description	MSRP
<b>Point-to-Point CAN, Multi-Mode</b>		
FTC-M2-WSA	1-ch point-to-point CAN, 2 fibers, multi-mode transceiver. Desktop/wall-mount, ST connector, US power plug.	500.00
FTC-M1A-WSA	1-ch point-to-point CAN, 1 fiber, multi-mode transceiver, "A" end. Desktop/wall-mount, ST connector, US power plug.	700.00
FTC-M1B-WSA	1-ch point-to-point CAN, 1 fiber, multi-mode transceiver, "B" end. Desktop/wall-mount, ST connector, US power plug.	700.00
<b>Point-to-Point CAN, Single Mode</b>		
FTC-S2-WSA	1-ch point-to-point CAN, 2 fibers, single mode transceiver. Desktop/wall-mount, ST connector, US power plug.	739.00
FTC-S1A-WSA	1-ch point-to-point CAN, 1 fiber, single mode transceiver, "A" end. Desktop/wall-mount, ST connector, US power plug.	1,085.00
FTC-S1B-WSA	1-ch point-to-point CAN, 1 fiber, single mode transceiver, "B" end. Desktop/wall-mount, ST connector, US power plug.	1,085.00
<b>Cascaded CAN Bus, Multi-Mode</b>		
FTCB-M2-WSA	1-ch cascaded bus CAN, 2 fibers, multi-mode transceiver. Desktop/wall-mount, ST connector, US power plug.	900.00
FTCB-M1A-WSA	1-ch cascaded bus CAN, 1 fiber, multi-mode transceiver. Desktop/wall-mount, ST connector, US power plug.	1,300.00
<b>Cascaded CAN Bus, Single Mode</b>		
FTCB-S2-WSA	1-ch cascaded bus CAN, 2 fibers, single mode transceiver. Desktop/wall-mount, ST connector, US power plug.	1,395.00
FTCB-S1A-WSA	1-ch cascaded bus CAN, 1 fiber, single mode transceiver. Desktop/wall-mount, ST connector, US power plug.	2,000.00

## LONWORKS™ Bus Data Transceivers

Model Number	Product Description	MSRP
<b>Point-to-Point LONWORKS, Multi-Mode</b>		
FTN-M2-WSA	1-ch point-to-point LONWORKS, 2 fibers, 12dB optical loss budget, multi-mode transceiver. Desktop/wall-mount, ST connector, US power plug.	886.00
FTN-M1A-WSA	1-ch point-to-point LONWORKS, 1 fiber, 12dB optical loss budget, multi-mode transceiver, "A" end. Desktop/wall-mount, ST connector, US power plug.	1,107.00
FTN-M1B-WSA	1-ch point-to-point LONWORKS, 1 fiber, 12dB optical loss budget, multi-mode transceiver, "B" end. Desktop/wall-mount, ST connector, US power plug.	1,107.00
<b>Point-to-Point LONWORKS, Single Mode</b>		
FTN-S2-WSA	1-ch point-to-point LONWORKS, 2 fibers, 18dB optical loss budget, single mode transceiver. Desktop/wall-mount, ST connector, US power plug.	1,240.00
FTN-S1A-WSA	1-ch point-to-point LONWORKS, 1 fiber, 18dB optical loss budget, single mode transceiver, "A" end. Desktop/wall-mount, ST connector, US power plug.	1,550.00
FTN-S1B-WSA	1-ch point-to-point LONWORKS, 1 fiber, 18dB optical loss budget, single mode transceiver, "B" end. Desktop/wall-mount, ST connector, US power plug.	1,550.00
<b>Cascaded Bus LONWORKS, Multi-Mode</b>		
FTNB-M2-WSA	1-ch cascaded bus LONWORKS, 2 fibers, 12dB optical loss budget, multi-mode transceiver. Desktop/wall-mount, ST connector, US power plug.	1,329.00
FTNB-M1A-WSA	1-ch cascaded bus LONWORKS, 1 fiber, 12dB optical loss budget, multi-mode transceiver. Desktop/wall-mount, ST connector, US power plug.	1,772.00



Model Number	Product Description	MSRP
<b>Cascaded Bus LONWORKS, Single Mode</b>		
FTNB-S2-WSA	1-ch cascaded bus LONWORKS, 2 fibers, 18dB optical loss budget, single mode transceiver. Desktop/wall-mount, ST connector, US power plug.	1,861.00
FTNB-S1A-WSA	1-ch cascaded bus LONWORKS, 1 fiber, 18dB optical loss budget, single mode transceiver. Desktop/wall-mount, ST connector, US power plug.	2,480.00

## PROFIBUS™ Bus Data Transceivers

Model Number	Product Description	MSRP
<b>Point-to-Point PROFIBUS, Multi-Mode</b>		
FTP-M2-WSA	1-ch point-to-point PROFIBUS, 2 fibers, 12dB optical loss budget, multi-mode transceiver. Desktop/wall-mount, ST connector, US power plug.	591.00
FTP-M1A-WSA	1-ch point-to-point PROFIBUS, 1 fiber, 12dB optical loss budget, multi-mode transceiver, "A" end. Desktop/wall-mount, ST connector, US power plug.	812.00
FTP-M1B-WSA	1-ch point-to-point PROFIBUS, 1 fiber, 12dB optical loss budget, multi-mode transceiver, "B" end. Desktop/wall-mount, ST connector, US power plug.	812.00
<b>Point-to-Point PROFIBUS, Single Mode</b>		
FTP-S2-WSA	1-ch point-to-point PROFIBUS, 2 fibers, 18dB optical loss budget, single mode transceiver. Desktop/wall-mount, ST connector, US power plug.	827.00
FTP-S1A-WSA	1-ch point-to-point PROFIBUS, 1 fiber, 18dB optical loss budget, single mode transceiver, "A" end. Desktop/wall-mount, ST connector, US power plug.	1,137.00
FTP-S1B-WSA	1-ch point-to-point PROFIBUS, 1 fiber, 18dB optical loss budget, single mode transceiver, "B" end. Desktop/wall-mount, ST connector, US power plug.	1,137.00
<b>Cascaded Bus PROFIBUS, Multi-Mode</b>		
FTP-B-M2-WSA	1-ch cascaded bus PROFIBUS, 2 fibers, 12dB optical loss budget, multi-mode transceiver. Desktop/wall-mount, ST connector, US power plug.	1,034.00
FTP-B-M1A-WSA	1-ch cascaded bus PROFIBUS, 1 fiber, 12dB optical loss budget, multi-mode transceiver. Desktop/wall-mount, ST connector, US power plug.	1,476.00
<b>Cascaded Bus PROFIBUS, Single Mode</b>		
FTP-B-S2-WSA	1-ch cascaded bus PROFIBUS, 2 fibers, 18dB optical loss budget, single mode transceiver. Desktop/wall-mount, ST connector, US power plug.	1,447.00
FTP-B-S1A-WSA	1-ch cascaded bus PROFIBUS, 1 fiber, 18dB optical loss budget, single mode transceiver. Desktop/wall-mount, ST connector, US power plug.	2,066.00

## TTL Data Transceivers

Model Number	Product Description	MSRP
<b>Point-to-Point TTL, Multi-Mode</b>		
FTT-M2-WSA	1-ch point-to-point TTL, 2 fibers, multi-mode transceiver. Desktop/wall-mount, ST connector, US power plug.	517.00
FTT-M1A-WSA	1-ch point-to-point TTL, 1 fiber, multi-mode transceiver, "A" end. Desktop/wall-mount, ST connector, US power plug.	738.00
FTT-M1B-WSA	1-ch point-to-point TTL, 1 fiber, multi-mode transceiver, "B" end. Desktop/wall-mount, ST connector, US power plug.	738.00
<b>Point-to-Point TTL, Single Mode</b>		
FTT-S2-WSA	1-ch point-to-point TTL, 2 fibers, single mode transceiver. Desktop/wall-mount, ST connector, US power plug.	723.00
FTT-S1A-WSA	1-ch point-to-point TTL, 1 fiber, single mode transceiver, "A" end. Desktop/wall-mount, ST connector, US power plug.	1,033.00
FTT-S1B-WSA	1-ch point-to-point TTL, 1 fiber, single mode transceiver, "B" end. Desktop/wall-mount, ST connector, US power plug.	1,033.00
<b>Cascaded Bus TTL, Multi-Mode</b>		
FTTB-M2-WSA	1-ch cascaded bus TTL, 2 fibers, multi-mode transceiver. Desktop/wall-mount, ST connector, US power plug.	960.00
FTTB-M1A-WSA	1-ch cascaded bus TTL, 1 fiber, multi-mode transceiver. Desktop/wall-mount, ST connector, US power plug.	1,403.00

Model Number	Product Description	MSRP
<b>Cascaded Bus TTL, Single Mode</b>		
FTTB-S2-WSA	1-ch cascaded bus TTL, 2 fibers, single mode transceiver. Desktop/wall-mount, ST connector, US power plug.	1,344.00
FTTB-S1A-WSA	1-ch cascaded bus TTL, 1 fiber, single mode transceiver. Desktop/wall-mount, ST connector, US power plug.	1,964.00

## Current Limiting Transceivers

Model Number	Product Description	MSRP
<b>Point-to-Point 20mA Current, Multi-Mode</b>		
FTA-M2-WSA	1-ch point-to-point 20mA current, 2 fibers, multi-mode transceiver. Desktop/wall-mount, ST connector, US power plug.	665.00
FTA-M1A-WSA	1-ch point-to-point 20mA current, 1 fiber, multi-mode transceiver, "A" end. Desktop/wall-mount, ST connector, US power plug.	886.00
FTA-M1B-WSA	1-ch point-to-point 20mA current, 1 fiber, multi-mode transceiver, "B" end. Desktop/wall-mount, ST connector, US power plug.	886.00
<b>Point-to-Point 20mA Current, Single Mode</b>		
FTA-S2-WSA	1-ch point-to-point 20mA current, 2 fibers, single mode transceiver. Desktop/wall-mount, ST connector, US power plug.	930.00
FTA-S1A-WSA	1-ch point-to-point 20mA current, 1 fiber, single mode transceiver, "A" end. Desktop/wall-mount, ST connector, US power plug.	1,240.00
FTA-S1B-WSA	1-ch point-to-point 20mA current, 1 fiber, single mode transceiver, "B" end. Desktop/wall-mount, ST connector, US power plug.	1,240.00
<b>Cascaded Bus 20mA Current, Multi-Mode</b>		
FTAB-M2-WSA	1-ch cascaded bus 20mA current, 2 fibers, multi-mode transceiver. Desktop/wall-mount, ST connector, US power plug.	1,107.00
FTAB-M1A-WSA	1-ch cascaded bus 20mA current, 1 fiber, multi-mode transceiver. Desktop/wall-mount, ST connector, US power plug.	1,550.00
<b>Cascaded Bus 20mA Current, Single Mode</b>		
FTAB-S2-WSA	1-ch cascaded bus 20mA current, 2 fibers, single mode transceiver. Desktop/wall-mount, ST connector, US power plug.	1,550.00
FTAB-S1A-WSA	1-ch cascaded bus 20mA current, 1 fiber, single mode transceiver. Desktop/wall-mount, ST connector, US power plug.	2,170.00

## Audio

Model Number	Product Description	MSRP
<b>Simplex Audio, Multi-Mode</b>		
FPAA1-MT	1-ch point-to-point simplex audio transmitter, 1 fiber, 12dB optical loss budget, multi-mode. Desktop/wall-mount, ST connector, US power plug.	400.00
FPAA1-MR	1-ch point-to-point simplex audio receiver, 1 fiber, 12dB optical loss budget, multi-mode. Desktop/wall-mount, ST connector, US power plug.	400.00
<b>Simplex Audio, Single Mode</b>		
FPAA1-ST	1-ch point-to-point simplex audio transmitter, 1 fiber, 18dB optical loss budget, single mode. Desktop/wall-mount, ST connector, US power plug.	600.00
FPAA1-SR	1-ch point-to-point simplex audio receiver, 1 fiber, 18dB optical loss budget, single mode. Desktop/wall-mount, ST connector, US power plug.	600.00
<b>Duplex Audio, Multi-Mode</b>		
FPAD1-MT	1-ch point-to-point duplex audio transmitter, 1 fiber, 12dB optical loss budget, multi-mode. Desktop/wall-mount, ST connector, US power plug.	580.00
FPAD1-MR	1-ch point-to-point duplex audio receiver, 1 fiber, 12dB optical loss budget, multi-mode. Desktop/wall-mount, ST connector, US power plug.	580.00
<b>Duplex Audio, Single Mode</b>		
FPAD1-ST	1-ch point-to-point duplex audio transmitter, 1 fiber, 18dB optical loss budget, single mode. Desktop/wall-mount, ST connector, US power plug.	850.00
FPAD1-SR	1-ch point-to-point duplex audio receiver, 1 fiber, 18dB optical loss budget, single mode. Desktop/wall-mount, ST connector, US power plug.	850.00

## Contact Closures

Model Number	Product Description	MSRP
<b>Simplex Contact Closure Point-to-Point, Multi-Mode</b>		
FPIA1-MT	1-ch point-to-point simplex contact closure, 1 fiber, 12dB optical loss budget, multi-mode transmitter. Desktop/wall-mount, ST connector, US power plug.	340.00
FPIA1-MR	1-ch point-to-point simplex contact closure, 1 fiber, 12dB optical loss budget, multi-mode receiver. Desktop/wall-mount, ST connector, US power plug.	340.00
FPIA4-MT	4-ch point-to-point simplex contact closure, 1 fiber, 12dB optical loss budget, multi-mode transmitter. Desktop/wall-mount, ST connector, US power plug.	550.00
FPIA4-MR	4-ch point-to-point simplex contact closure, 1 fiber, 12dB optical loss budget, multi-mode receiver. Desktop/wall-mount, ST connector, US power plug.	550.00
FPIA8-MT	8-ch point-to-point simplex contact closure, 1 fiber, 12dB optical loss budget, multi-mode transmitter. Desktop/wall-mount, ST connector, US power plug.	700.00
FPIA8-MR	8-ch point-to-point simplex contact closure, 1 fiber, 12dB optical loss budget, multi-mode receiver. Desktop/wall-mount, ST connector, US power plug.	700.00
<b>Simplex Contact Closure Point-to-Point, Single Mode</b>		
FPIA1-ST	1-ch point-to-point simplex contact closure, 1 fiber, 18dB optical loss budget, single mode transmitter. Desktop/wall-mount, ST connector, US power plug.	650.00
FPIA1-SR	1-ch point-to-point simplex contact closure, 1 fiber, 18dB optical loss budget, single mode receiver. Desktop/wall-mount, ST connector, US power plug.	650.00
FPIA4-ST	4-ch point-to-point simplex contact closure, 1 fiber, 18dB optical loss budget, single mode transmitter. Desktop/wall-mount, ST connector, US power plug.	1,050.00
FPIA4-SR	4-ch point-to-point simplex contact closure, 1 fiber, 18dB optical loss budget, single mode receiver. Desktop/wall-mount, ST connector, US power plug.	1,050.00
FPIA8-ST	8-ch point-to-point simplex contact closure, 1 fiber, 18dB optical loss budget, single mode transmitter. Desktop/wall-mount, ST connector, US power plug.	1,000.00
FPIA8-SR	8-ch point-to-point simplex contact closure, 1 fiber, 18dB optical loss budget, single mode receiver. Desktop/wall-mount, ST connector, US power plug.	1,000.00
<b>Duplex Contact Closure Point-to-Point, Multi-Mode</b>		
FPID1-MT	1-ch point-to-point duplex contact closure, 1 fiber, 12dB optical loss budget, multi-mode transmitter. Desktop/wall-mount, ST connector, US power plug.	370.00
FPID1-MR	1-ch point-to-point duplex contact closure, 1 fiber, 12dB optical loss budget, multi-mode receiver. Desktop/wall-mount, ST connector, US power plug.	370.00
FPID4-MT	4-ch point-to-point duplex contact closure, 1 fiber, 12dB optical loss budget, multi-mode transmitter. Desktop/wall-mount, ST connector, US power plug.	900.00
FPID4-MR	4-ch point-to-point duplex contact closure, 1 fiber, 12dB optical loss budget, multi-mode receiver. Desktop/wall-mount, ST connector, US power plug.	900.00
FPID8-MT	8-ch point-to-point duplex contact closure, 1 fiber, 12dB optical loss budget, multi-mode transmitter. Desktop/wall-mount, ST connector, US power plug.	1,280.00
FPID8-MR	8-ch point-to-point duplex contact closure, 1 fiber, 12dB optical loss budget, multi-mode receiver. Desktop/wall-mount, ST connector, US power plug.	1,280.00
<b>Duplex Contact Closure Point-to-Point, Single Mode</b>		
FPID1-ST	1-ch point-to-point duplex contact closure, 1 fiber, 18dB optical loss budget, single mode transmitter. Desktop/wall-mount, ST connector, US power plug.	700.00
FPID1-SR	1-ch point-to-point duplex contact closure, 1 fiber, 18dB optical loss budget, single mode receiver. Desktop/wall-mount, ST connector, US power plug.	700.00

Model Number	Product Description	MSRP
FPID4-ST	4-ch point-to-point duplex contact closure, 1 fiber, 18dB optical loss budget, single mode transmitter. Desktop/wall-mount, ST connector, US power plug.	1,100.00
FPID4-SR	4-ch point-to-point duplex contact closure, 1 fiber, 18dB optical loss budget, single mode receiver. Desktop/wall-mount, ST connector, US power plug.	1,100.00
FPID8-ST	8-ch point-to-point duplex contact closure, 1 fiber, 18dB optical loss budget, single mode transmitter. Desktop/wall-mount, ST connector, US power plug.	1,600.00
FPID8-SR	8-ch point-to-point duplex contact closure, 1 fiber, 18dB optical loss budget, single mode receiver. Desktop/wall-mount, ST connector, US power plug.	1,600.00

## Telephone

Model Number	Product Description	MSRP
<b>Telephone, Multi-Mode</b>		
FPTD1-MT	1-ch point-to-point telephone transmitter, 1 fiber, 12dB optical loss budget, multi-mode. Desktop/wall-mount, ST connector, US power plug.	1,100.00
FPTD1-MR	1-ch point-to-point telephone receiver, 1 fiber, 12dB optical loss budget, multi-mode. Desktop/wall-mount, ST connector, US power plug.	1,100.00
<b>Telephone, Single Mode</b>		
FPTD1-ST	1-ch point-to-point telephone transmitter, 1 fiber, 18dB optical loss budget, single mode. Desktop/wall-mount, ST connector, US power plug.	1,600.00
FPTD1-SR	1-ch point-to-point telephone receiver, 1 fiber, 18dB optical loss budget, single mode. Desktop/wall-mount, ST connector, US power plug.	1,600.00
<b>Duplex E1 Channel, Multi-Mode</b>		
FPED1-MT	1-ch point-to-point duplex E1 transmitter, 1 fiber, 12dB optical loss budget, multi-mode. Desktop/wall-mount, ST connector, US power plug.	800.00
FPED1-MR	1-ch point-to-point duplex E1 receiver, 1 fiber, 12dB optical loss budget, multi-mode. Desktop/wall-mount, ST connector, US power plug.	800.00
<b>Duplex E1 Channel, Single Mode</b>		
FPED1-ST	1-ch point-to-point duplex E1 transmitter, 1 fiber, 18dB optical loss budget, single mode. Desktop/wall-mount, ST connector, US power plug.	1,200.00
FPED1-SR	1-ch point-to-point duplex E1 receiver, 1 fiber, 18dB optical loss budget, single mode. Desktop/wall-mount, ST connector, US power plug.	1,200.00

## Chassis Card Cages

Model Number	Product Description	MSRP
<b>Chassis Cages, 3RU</b>		
FR3-AB	3RU 19" chassis card cage for up to 14 single width modules. US power plug.100-120VAC, 50/60Hz,	800.00
FR3-AB-RP	3RU 19" chassis card cage for up to 12 single width modules. Includes redundant power supply. US power plug.100-120VAC, 50/60Hz,	1,400.00
PSA100-5-B	3RU replacement power supply unit. 100~120VAC, 50/60Hz.	600.00
PSA200-5-B	3RU replacement power supply unit. 200~240VAC, 50/60Hz.	600.00
<b>Chassis Cages, 4RU</b>		
FR4-AB	4RU ASFOM 19" chassis card cage for up to 14 single width modules. US power plug.100-120VAC, 50/60Hz,	1,123.00
FR4-AB-RP	4RU ASFOM 19" chassis card cage for up to 12 single width modules. Includes redundant power supply. US power plug.100-120VAC, 50/60Hz,	1,723.00
PSA100-5-C	4RU replacement power supply unit. 100~120VAC, 50/60Hz.	800.00
PSA200-5-C	4RU replacement power supply unit. 200~240VAC, 50/60Hz.	800.00
<b>Rack Mount Option</b>		
R1U	1RU rack mount.	300.00
R2U	2RU rack mount.	600.00

## Broadcast Products

### DVI

Model Number	Product Description	MSRP
<b>DVI point-to-point interface - Multi-Mode</b>		
FPCB1-M4T-WSA	1-ch point-to-point DVI interface with memory EDID, 4 fibers, 1310nm multi-mode transmitter, 2km range. Desktop/wall-mount, ST connector, US power plug.	1,400.00
FPCB1-M4R-WSA	1-ch point-to-point DVI interface, 4 fibers, 1310nm multi-mode receiver, 2km range. Desktop/wall-mount, ST connector, US power plug.	1,400.00
FPCB1-M2T-WSA	1-ch point-to-point DVI interface with memory EDID, 2 fibers, 1310nm & 1550nm multi-mode transmitter, 2km range. Desktop/wall-mount, ST connector, US power plug.	2,100.00
FPCB1-M2R-WSA	1-ch point-to-point DVI interface, 2 fibers, 1310nm & 1550nm multi-mode receiver, 2km range.. Desktop/wall-mount, ST connector, US power plug.	2,100.00
FPCB1-M1T-WSA	1-ch point-to-point DVI interface with DDC line, 1 fiber, multi-mode transmitter, 600m range.. Desktop/wall-mount, ST connector, US power plug.	3,500.00
FPCB1-M1R-WSA	1-ch point-to-point DVI interface with DDC line, 1 fiber, multi-mode receiver, 600m range. Desktop/wall-mount, ST connector, US power plug.	3,500.00
<b>DVI point-to-point interface - Single Mode</b>		
FPCB1-S4T-WSA	1-ch point-to-point DVI interface with memory EDID, 4 fibers, 1310nm single-mode transmitter, 10km range. Desktop/wall-mount, ST connector, US power plug.	1,800.00
FPCB1-S4R-WSA	1-ch point-to-point DVI interface, 4 fibers, 1310nm single-mode receiver, 10km range. Desktop/wall-mount, ST connector, US power plug.	1,800.00
FPCB1-S2T-WSA	1-ch point-to-point DVI interface with memory EDID, 2 fibers, single-mode transmitter, 10km range. Desktop/wall-mount, ST connector, US power plug.	2,700.00
FPCB1-S2R-WSA	1-ch point-to-point DVI interface, 2 fibers, single-mode receiver, 10km range. Desktop/wall-mount, ST connector, US power plug.	2,700.00
FPCB1-S1T-WSA	1-ch point-to-point DVI interface with DDC line, 1 fiber, single-mode transmitter, 10km range. Desktop/wall-mount, ST connector, US power plug.	5,850.00
FPCB1-S1R-WSA	1-ch point-to-point DVI interface with DDC line, 1 fiber, single-mode receiver, 10km range. Desktop/wall-mount, ST connector, US power plug.	5,800.00
<b>DVI Splitter</b>		
CHC2-WA	DVI signal splitter, 1 input, 2 output. Desktop/wall-mount, US power plug.	420.00
CHC4-WA	DVI signal splitter, 1 input, 4 output. Desktop/wall-mount, US power plug.	630.00
CHC8-WA	DVI signal splitter, 1 input, 8 output. Desktop/wall-mount, US power plug.	1,610.00
CHC12-WA	DVI signal splitter, 1 input, 12 output. Desktop/wall-mount, US power plug.	2,800.00
CHC16-WA	DVI signal splitter, 1 input, 16 output. Desktop/wall-mount, US power plug.	3,500.00

### 3G-SDI

Model Number	Product Description	MSRP
<b>3G-SDI point-to-point interface - Multi-Mode</b>		
FPFA1-M1T-WSA	1-ch point-to-point 3G-SDI, 1 fiber, multi-mode transmitter. 12dB optical loss budget, 2km range. Desktop/wall-mount, ST connector, US power plug.	1,750.00
FPFA1-M1R-WSA	1-ch point-to-point 3G-SDI, 1 fiber, multi-mode receiver. 12dB optical loss budget, 2km range. Desktop/wall-mount, ST connector, US power plug.	1,750.00
<b>3G-SDI point-to-point interface - Single Mode</b>		
FPFA1-S1T-WSA	1-ch point-to-point 3G-SDI, 1 fiber, single-mode transmitter. 12dB optical loss budget, 40km range. Desktop/wall-mount, ST connector, US power plug.	2,400.00
FPFA1-S1R-WSA	1-ch point-to-point 3G-SDI, 1 fiber, single-mode receiver. 12dB optical loss budget, 40km range. Desktop/wall-mount, ST connector, US power plug.	2,400.00

## HD-SDI

Model Number	Product Description	MSRP
<b>HD-SDI point-to-point interface - Multi-Mode</b>		
FPSA1-M1R-WSA	1-ch point-to-point HD-SDI, 1 fiber, 1310nm multi-mode receiver. 2km range. Desktop/wall-mount, ST connector, US power plug.	1,300.00
FPSA1-M1T-WSA	1-ch point-to-point HD-SDI, 1 fiber, 1310nm multi-mode transmitter. 2km range. Desktop/wall-mount, ST connector, US power plug.	1,300.00
<b>HD-SDI point-to-point interface - Single Mode</b>		
FPSA1-S1R-WSA	1-ch point-to-point HD-SDI, 1 fiber, 1310nm single-mode receiver, 40km range. Desktop/wall-mount, ST connector, US power plug.	1,800.00
FPSA1-S1T-WSA	1-ch point-to-point HD-SDI, 1 fiber, 1310nm single-mode transmitter, 40km range. Desktop/wall-mount, ST connector, US power plug.	1,800.00

## USB Extender

Model Number	Product Description	MSRP
<b>USB Extender - Multi-Mode</b>		
FPUB1-M2T-WSA	Point-to-point USB extender, 2 fibers, multi-mode transmitter. 2km range. Desktop/wall-mount, ST connector, US power plug.	1,200.00
FPUB1-M2R-WSA	Point-to-point USB extender, 2 fibers, multi-mode receiver. 2km range. Desktop/wall-mount, ST connector, US power plug.	1,200.00
FPUB1-M1T-WSA	Point-to-point USB extender, 1 fiber, multi-mode transmitter. 2km range. Desktop/wall-mount, ST connector, US power plug.	1,500.00
FPUB1-M1R-WSA	Point-to-point USB extender, 1 fiber, multi-mode receiver. 2km range. Desktop/wall-mount, ST connector, US power plug.	1,500.00
<b>USB Extender - Single Mode</b>		
FPUB1-S2T-WSA	Point-to-point USB extender, 2 fibers, single mode transmitter. 20km range. Desktop/wall-mount, ST connector, US power plug.	1,500.00
FPUB1-S2R-WSA	Point-to-point USB extender, 2 fibers, single mode receiver. 20km range. Desktop/wall-mount, ST connector, US power plug.	1,500.00
FPUB1-S1T-WSA	Point-to-point USB extender, 1 fiber, single mode transmitter. 20km range. Desktop/wall-mount, ST connector, US power plug.	1,900.00
FPUB1-S1R-WSA	Point-to-point USB extender, 1 fiber, single mode receiver. 20km range. Desktop/wall-mount, ST connector, US power plug.	1,900.00

## KVM Interface

Model Number	Product Description	MSRP
<b>KVM Interface - Multi-Mode</b>		
FPCB1-L1-U1-AB2-DB1-IB2-M8T-RSA	Transmitter - DVI, LAN, 1 USB port, 2-ch audio, 1-ch duplex RS232, 2-ch duplex contact closure, keyboard & mouse, 1310nm, 8 fibers, 2Km range, multi-mode. 1RU rack mount, ST connector, US power plug.	2,500.00
FPCB1-L1-U4-AB2-DB1-IB2-M8R-RSA	Receiver - DVI, LAN, 4 USB ports, 2-ch audio, 1-ch duplex RS232, 2-ch duplex contact closure, keyboard & mouse, 1310nm, 8 fibers, 2Km range, multi-mode. 1RU rack mount, ST connector, US power plug.	2,500.00
FPCB1-L1-U1-AB2-DB1-IB2-M4T-RSA	Transmitter - DVI, LAN, 1 USB port, 2-ch audio, 1-ch duplex RS232, 2-ch duplex contact closure, keyboard & mouse, 1310/1550nm, 4 fibers, 2Km range, multi-mode. 1RU rack mount, ST connector, US power plug.	3,750.00
FPCB1-L1-U4-AB2-DB1-IB2-M4R-RSA	Receiver - DVI, LAN, 4 USB ports, 2-ch audio, 1-ch duplex RS232, 2-ch duplex contact closure, keyboard & mouse, 1310/1550nm, 4 fibers, 2Km range, multi-mode. 1RU rack mount, ST connector, US power plug.	3,750.00
FPCB1-L1-U1-AB2-DB1-IB2-M1T-RSA	Transmitter - DVI, LAN, 1 USB port, 2-ch audio, 1-ch duplex RS232, 2-ch duplex contact closure, keyboard & mouse, CWDM, 1 fiber, 2Km range, multi-mode. 1RU rack mount, ST connector, US power plug.	6,250.00
FPCB1-L1-U4-AB2-DB1-IB2-M1R-RSA	Receiver - DVI, LAN, 4 USB ports, 2-ch audio, 1-ch duplex RS232, 2-ch duplex contact closure, keyboard & mouse, CWDM, 1 fiber, 2Km range, multi-mode. 1RU rack mount, ST connector, US power plug.	6,250.00



Model Number	Product Description	MSRP
<b>KVM Interface - Single Mode</b>		
<b>FPCB1-L1-U1-AB2-DB1-IB2-S8T-RSA</b>	Transmitter - DVI, LAN, 1 USB port, 2-ch audio, 1-ch duplex RS232, 2-ch duplex contact closure, keyboard & mouse, 1310nm, 8 fibers, 30Km range, single mode. 1RU rack mount, ST connector, US power plug.	<b>3,000.00</b>
<b>FPCB1-L1-U4-AB2-DB1-IB2-S8R-RSA</b>	Receiver - DVI, LAN, 4 USB ports, 2-ch audio, 1-ch duplex RS232, 2-ch duplex contact closure, keyboard & mouse, 1310nm, 8 fibers, 30Km range, single mode. 1RU rack mount, ST connector, US power plug.	<b>3,000.00</b>
<b>FPCB1-L1-U1-AB2-DB1-IB2-S4T-RSA</b>	Transmitter - DVI, LAN, 1 USB port, 2-ch audio, 1-ch duplex RS232, 2-ch duplex contact closure, keyboard & mouse, 1310/1550nm, 4 fibers, 30Km range, single mode. 1RU rack mount, ST connector, US power plug.	<b>4,500.00</b>
<b>FPCB1-L1-U4-AB2-DB1-IB2-S4R-RSA</b>	Receiver - DVI, LAN, 4 USB ports, 2-ch audio, 1-ch duplex RS232, 2-ch duplex contact closure, keyboard & mouse, 1310/1550nm, 4 fibers, 30Km range, single mode. 1RU rack mount, ST connector, US power plug.	<b>4,500.00</b>
<b>FPCB1-L1-U1-AB2-DB1-IB2-S1T-RSA</b>	Transmitter - DVI, LAN, 1 USB port, 2-ch audio, 1-ch duplex RS232, 2-ch duplex contact closure, keyboard & mouse, CWDM, 1 fiber, 30Km range, single mode. 1RU rack mount, ST connector, US power plug.	<b>7,500.00</b>
<b>FPCB1-L1-U4-AB2-DB1-IB2-S1R-RSA</b>	Receiver - DVI, LAN, 4 USB ports, 2-ch audio, 1-ch duplex RS232, 2-ch duplex contact closure, keyboard & mouse, CWDM, 1 fiber, 30Km range, single mode. 1RU rack mount, ST connector, US power plug.	<b>7,500.00</b>
<b>Loop-Through Port</b>		
<b>LPTHRU</b>	Loop through port.	<b>300.00</b>

## ASFOM - Application Specific Fiber Optic Modems

At KBC, we understand that applications in the real world rarely fit in pre-packaged increments, and appreciate the cost of unused capacity. With ASFOM you choose the number of channels and mix of signal types, and we will package your design into a standard module using only 1 fiber in most cases. Available in point-to-point and repeater bus configurations, ASFOM can accommodate up to 128 video signals or combinations of video, audio, data, contact closure, telephone and Ethernet on a single fiber. Please contact KBC Networks for details and configuration assistance.

## About Model Numbers

Due to variations in geographic locations and system applications, KBC Networks offers many options in the configuration of models. Accordingly, the suffix of our product model numbers describes options available in their packaging. Default configurations are listed in this price schedule. Please contact your sales representative for assistance with special configuration requirements.

For example, referencing the table below, model FDVA1-M1T-**MSA** indicates the unit is configured in compact form factor, with ST connector, and US style power plug.

First digit (**x**) – packaging / form factor:

- W** Wall mount/desktop configuration
- M** Compact format
- R** 1U or 2U 19" rack mount (additional charges apply for Standard Digital models)
- B** 3U chassis card (for Standard Digital series)
- C** 4U chassis card (for ASFOM series)

Second digit (**y**) – fiber connector type used:

- F** FC connector
- S** ST connector
- C** SC connector
- L** LC connector

Third digit (**z**) – power plug type used:

- A** US power plug (120-127V, 15A, 2 pins ungrounded; 3 pins grounded)
- B** UK power plug (220-240V, 13A, 3 pins)
- C** Euro power plug (220-240V, 16A, 2 pins)

## Warranty Options and Support Services

Model Number	Product Description	MSRP
<b>Support Services and Extended Warranties</b>		
<b>KBC-FS-1</b>	KBC Engineer Field Support for 1 day (8 hours). No Discount. Not including travel expenses.	<b>1,500.00</b>
<b>KBC-PRE-CONF</b>	A KBC Networks technician will personally program and custom label all wireless product for a quick plug and play installation. KBC will set all IP addresses, radio frequencies, MAC locks and SSIDs. When applicable, KBC will provide a customized wireless network diagram. KBC Networks will not make any changes to the username, password, or pre-shared key. It is advised that the customer update username, password and pre-shared key for highest network security. Cost is per wireless unit.	<b>60.00</b>
<b>KBC-WA-E2</b>	Enhance the limited 2 year warranty to include Advance Replacements. This plan is valid for one product (associated to serial number) and must be purchased before installation.	<b>10% of Unit List price</b>
<b>KBC-WA-EE3</b>	Extend and Enhance the limited warranty to 3 years and include Advance Replacements. This plan is valid for one product (associated to serial number) and must be purchased before installation.	<b>20% of Unit List price</b>
<b>KBC-WA-EE4</b>	Extend and Enhance the limited warranty to 4 years and include Advance Replacements. This plan is valid for one product (associated to serial number) and must be purchased before installation.	<b>30% of Unit List price</b>
<b>KBC-WA-EE5</b>	Extend and Enhance the limited warranty to 5 years and include Advance Replacements. This plan is valid for one product (associated to serial number) and must be purchased before installation.	<b>40% of Unit List price</b>
<b>KBC-WA-E2U</b>	Enhance the limited 2 year warranty to include Advance Replacements for products that have already been installed. This plan is valid for one product (associated to serial number)	<b>20% of Unit List price</b>
<b>KBC-WA-EE3U</b>	Extend and Enhance the limited warranty to 3 years and include Advance Replacements for products that have already been installed. This plan is valid for one product (associated to serial number) and must be purchased before standard warranty expires.	<b>30% of Unit List price</b>
<b>KBC-WA-EE4U</b>	Extend and Enhance the limited warranty to 4 years and include Advance Replacements for products that have already been installed. This plan is valid for one product (associated to serial number) and must be purchased before standard warranty expires.	<b>40% of Unit List price</b>
<b>KBC-WA-EE5U</b>	Extend and Enhance the limited warranty to 5 years and include Advance Replacements for products that have already been installed. This plan is valid for one product (associated to serial number) and must be purchased before standard warranty expires.	<b>50% of Unit List price</b>



## Standard Terms and Conditions

### Terms

Except as otherwise agreed to in writing by KBC Networks, Inc. ("KBC Networks"), these terms and conditions shall govern all sales promotion, advertising or license of, and quotations covering purchase order for, products of KBC Networks, and any provision of the BUYER's order deemed inconsistent herewith shall be waived. All orders are subject to acceptance and approval in writing by KBC Networks.

### Title and Delivery

Unless otherwise expressly provided herein, title passes to BUYER when products are delivered to the carrier. In all cases, risk of loss or damage to any such product in transit shall fall upon BUYER, whose responsibility it shall be to file claims with the carrier, which shall be deemed BUYER's agent. KBC Networks accepts no responsibility and shall not be responsible for such claims with the carrier. Unless KBC Networks receives specific shipping instructions from BUYER, which may subject BUYER to an additional charge, KBC Networks will exercise its own discretion in selecting the method of shipment.

Shipping dates are approximate and are based upon prompt receipt of all necessary documents from BUYER. KBC Networks reserves the right to make deliveries of product by installments, and when KBC Networks cannot deliver the full amount of all orders on the agreed schedule, the right to allocate production lots among its various BUYERS then under contract for similar goods, in a commercially reasonable manner. KBC Networks shall not be liable for delays in delivery, non-delivery, or other defaults by reason of any strike, lockout, accident, fire, flood, delays of carrier, acts of God, acts of BUYER, acts of civil or military authority, inability to obtain necessary fuel, power, labor, materials, or manufacturing facilities, or any other cause, occurrence, or contingency beyond the reasonable control of KBC Networks. Nor shall KBC Networks be liable for any special or consequential damages caused by any delay in delivery or failure to manufacture or deliver.

### Price Quotations

Unless otherwise agreed to in writing by KBC Networks, all quotations expire thirty (30) days after the date of the quotation or at the end of the ordering period of any quantity discount agreement against which the quotation is issued, whichever date is earlier. All prices quoted are valid only if BUYER's requested delivery date (including change orders) is within three (3) months of the date on which the original order is placed. Prices stated do not include freight and any federal, state, municipal, or other government tax now or hereafter imposed upon the production, storage, sale, taxes, the BUYER, or in lieu thereof, the BUYER shall provide a tax exemption certificate acceptable to the taxing authorities.

### Use of KBC Networks Name, Logos, Product Images, and Related Materials

Use of the KBC Networks name, tradenames, logos, product images, and related information (in print- and/or electronic-forms) (collectively "KBC Networks Property") is limited to BUYERs who have completed the Customer application process and are customers in good standing.

KBC Networks grants BUYER permission to use the KBC Networks Property subject to the following conditions: (1) all advertising of BUYER clearly indicates that it is advertising of BUYER, and is not advertising of KBC Networks; (2) BUYER's advertising does not imply or suggest an association between BUYER and KBC Networks other than that of buyer and seller; (3) BUYER's use of the KBC Networks Property positively represents KBC Networks and KBC Networks' equipment and related services in a professional manner; (4) BUYER's trade name is more predominant on BUYER's advertising than KBC Networks trademarks; (5) the appropriate trademark notice (™ or ®) appears adjacent all KBC Networks federally registered trademarks; (6) the Trademark Statement below appears in or at the end of all advertising wherein any KBC Networks trademarks are used; (7) no modifications of any KBC Networks Property are made; and (8) only product pricing within ten percent (10%) of KBC Networks' MSRP may be used for direct marketing or E-commerce promotion activities. Use for any other purpose is expressly prohibited, and may result in severe civil and criminal liabilities.

The use of KBC Networks Property is authorized ONLY for promotion and sale of KBC Networks products. Use of KBC Networks Property does NOT imply any business association with KBC Networks, other than that of buyer and seller.

KBC Networks reserves the right to review BUYER's advertising and may: (1) specify and require changes to the advertising as a condition of use; or (2) refuse or revoke permission to use KBC Networks Property by BUYER.

When KBC Networks trademarks are used for the purpose of demonstrating an association between another company and KBC Networks, permission is granted for their use provided that: (1) the applicable legend, "Authorized KBC Networks Dealer," "Authorized KBC Networks Distributor," or "Authorized KBC Networks Systems Integrator" appears below BUYER's tradename; and (2) KBC Networks has not specifically denied permission to BUYER.

KBC Networks trademarks may not be used in any way that gives the impression that BUYER is part of KBC Networks, or is the EXCLUSIVE Agent, Dealer, or Distributor for KBC Networks.

Permission to use KBC Networks Property for any other purpose is not granted, and must be specifically obtained

in writing from the KBC Networks Sales and Marketing Department.

KBC Networks reserves the right to deny or revoke permission to use any of the KBC Networks Property for any or no reason at any time.

KBC Networks, Inc., the KBC Networks, Inc. logos, and "MiniLink" are either trademarks or federally registered trademarks of KBC Networks.

Any rights not expressly granted herein are reserved by KBC Networks.

The following Trademark Statement must appear on any document that contains a KBC Networks trademark:  
"[the appropriate KBC Networks trademark(s)] is a (are) trademark(s) of KBC Networks – Lake Forest, CA, and may be registered in certain jurisdictions."

Questions regarding use of KBC Networks Property should be directed to the KBC Networks Sales and Marketing Department.

### Changes

By mutual agreement an order may be suspended or changes may be made in quantity, specifications, place of delivery, or methods of shipment and packaging. If any such change causes an increase or decrease in the price of the equipment or in the time required for delivery, KBC Networks shall promptly notify the BUYER and assert its claim within thirty (30) days from the date the change is agreed upon, and an equitable adjustment shall be made. In any event, changes shall not be binding upon, nor be put into effect by, either party unless confirmed in writing by its appropriate representative.

### Payment

Unless special terms are requested from and agreed upon by KBC Networks, all orders shall require 100% prepayment before product is shipped. Prepayment shall be made in U.S. dollars and may be in the form of wire transfer, approved credit card transaction, approved checks and drafts, money order, C.O.D., funds on account or any other transfer of funds satisfactory to KBC Networks. In the case of checks and drafts, shipment will be made only after funds have cleared KBC Networks' bank.

When KBC Networks has extended credit to BUYER, invoices will be issued under date of shipment with terms of net thirty (30) days from date of invoice, subject to such changes as KBC Networks may impose because of financial or credit conditions existing at time of shipment. In the event of an order for several units, each unit will be invoiced when shipped. Interest will be added to and be payable at the rate of 1.5% per month on all invoices not paid when due. Payment shall be made in U.S. dollars and may be in the form of wire transfer, approved credit card transaction, approved checks and drafts, money order,

funds on account or any other transfer of funds satisfactory to KBC Networks. All credit card transactions over \$5,000 U.S. dollars are subject to a credit card handling fee of 3.5% of the invoice value. KBC Networks reserves the right to modify these terms and conditions for export business and special projects.

### Shortages, Returns and Advance Replacements

All claims for shortages, defective, or incorrect products must be filed with KBC Networks by BUYER within fifteen (15) days of receipt of the product. A Return Material Authorization (RMA) number must be obtained by BUYER from KBC Networks prior to return of merchandise and must be written on the package returned and referred to in all related correspondence. KBC Networks standard products, as listed in KBC's published price list, may be returned within thirty (30) days of shipment provided the products are in like new condition and in the original packaging. Any product older than thirty (30) days will be repaired and returned in accordance with KBC Networks' warranty. All requests for advance replacements will require a new purchase order. PLEASE NOTE: Custom Orders, including but not limited to ASFOM, EBUS, 10 Bit Video are Non-Returnable.

### Warranty

KBC Networks extends the following Limited Warranty to the original owner/purchaser of this product as follows:

- Five years from the date of initial sale on all fiber optic products (except commercial Ethernet media converters).
- Two years from the date of initial sale for all other products.

KBC Networks extends the following Limited Warranty to the original owner/purchaser of this product: if this product, or any part or portion thereof, shall prove upon examination by KBC Networks, to be defective in material or workmanship, KBC Networks will repair or replace such part or portion at KBC Networks' option. The warranty period on the repaired or replaced part or portion of this product shall be limited to the unexpired term of the original warranty. The buyer shall be responsible for all shipping and transportation of the product to KBC Networks for any performance under this warranty.

### Conditions and Exceptions:

a) Any accident to this product, any misuse or abuse, alternation, use in modified form, or any attempt to repair this product shall void this warranty. These conditions to the warranty include, but are not limited to, incorrect power connections, physical damage due to mechanical shock, exposure to moisture, and circuit modification;

b) Should this product prove defective following purchase, the buyer, not the manufacturer, distributor, or retailer, assumes the entire cost of all servicing or repair, except as

otherwise provided by the terms of this warranty;

c) For breach of any written or implied warranty on this product, the buyer is limited to the following damages:

- i. The cost of labor to repair or replace defective parts or portions of this product, and
- ii. The cost of the repaired or replaced parts or portions of this product;

d) No other expressed or implied warranties have been made or will be made on behalf of KBC Networks with respect to the sale, repair, installation, operation, or replacement of this product. KBC Networks disclaims any implied warranty of merchantability of this product or its fitness for any purpose, and the buyer agrees that this product is sold "as is" and that the entire risk of the quality and performance of this product is with the buyer, except as otherwise provided by the terms of this warranty;

e) Some states/jurisdictions do not allow exclusions or limitations of incidental or consequential damages, or limitations on how long an implied warranty lasts, so the above exclusions or limitations may not apply to you;

f) If you do not wish to be bound by any of the provisions in this warranty, please return the product(s) immediately.

This warranty does not apply in Australia.

Contact KBC Networks at [info@kbcnetworks.com](mailto:info@kbcnetworks.com) regarding return authorization for out of warranty repairs and any further product information.

#### **Limitation of Remedies and Liabilities**

The remedies provided herein are BUYER's sole and exclusive remedies. In no event shall KBC Networks be liable for direct, indirect, special, incidental, or consequential damages (including loss of profits), whether based on contract, tort, or any other legal theory. The foregoing limitation of liability shall not apply in the event that any KBC Networks product sold hereunder is determined by a court of competent jurisdiction to be defective and to have directly caused bodily injury, death, or property damage, provided that in no event shall KBC Networks' liability for property damage exceed the greater of \$5,000 or the purchase price of the specific product that caused such damage.

#### **Patented and Copyrighted Materials**

Unless otherwise agreed to in writing by KBC Networks, copyrighted materials (printed documentation) may not be copied.

#### **Proprietary Information**

All proprietary information, specifically designated as such, which is disclosed by either party to the other in connection with purchase order, shall be used solely for purposes of the purchase order and shall be protected by the recipient from disclosure to others with the same degree of care as that accorded to the recipient's own proprietary information. Information will not be subject to this provision if (1) it is or becomes a matter of public knowledge without the fault of the recipient party; (2) it was a matter of written record in the recipient party's files prior to disclosure of it by the other party; (3) it was or is received by the recipient party from a third party under circumstances permitting its disclosure; or (4) its disclosure is required by a government agency.

#### **Protection**

KBC Networks shall defend any litigation resulting from sales of its products/equipment if the litigation is based on a claim that KBC Networks' equipment or any part of it furnished hereunder constitutes in itself any patent infringement. BUYER shall notify KBC Networks upon its obtaining notice of such an impending claim, and shall cooperate fully with KBC Networks in preparing a defense. KBC Networks shall pay all damages and costs awarded therein against BUYER on grounds of patent infringement and shall reimburse BUYER for any expense it incurs on KBC Networks' written request and authorization. If KBC Networks' equipment or any part thereof is held to constitute patent infringement and the use thereof is enjoined, KBC Networks shall, at its own expense, either procure for the BUYER the right to use KBC Networks' equipment, or replace it with equipment that does not constitute patent infringement. KBC Networks shall not have any liability to BUYER under any provision of this document if any patent infringement or claim thereof, is based upon the use of KBC Networks' equipment in combination with equipment or devices not made by KBC Networks, or in a manner for which KBC Networks' equipment was not designed. The foregoing states the entire liability of KBC Networks with respect to patent infringement relating to KBC Networks' equipment, or any part thereof, ordered by BUYER.

#### **Miscellaneous**

BUYER's purchase or license of KBC Networks' products represents acceptance of KBC Networks' terms and conditions as stated herein. These Standard Terms and Conditions constitute the entire understanding of the parties and supersede all prior communications between the parties.