

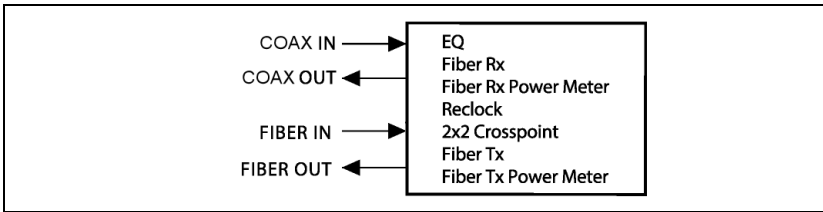
BBG-EOOE-MK2 Coax-Fiber / Fiber-Coax

3G/HD/SD-SDI / ASI / MADI Fiber Optic Dual Transport Transceiver

The **BBG-EOOE-MK2 Coax/Fiber Transceiver** (hereinafter called "BlueBox™ EOOE") provides a small "throwdown" package that supports SMPTE 424M, 292M, and 259M as well as ASI and MADI audio on independent coax-fiber and fiber-coax paths. Auto-mode EQ/reclocking automatically sets to the signal type being received while allowing unrecognized formats to be safely passed without reclocking (auto-reclock can also be manually disabled for either path as desired). Its wide operating range (from 5Mbps to 3Gbps) flexibly supports most professional digital serial communications. Fully error-free pathological pattern operation is fully compatible with other professional fiber video interfaces.

Note: BlueBox™ EOOE does not support AES-3id transports.

The unit receives its DC power from either connecting its USB port to associated equipment, or by the supplied AC adapter.



Connecting BlueBox™ EOOE

- 1 Connect BlueBox™ EOOE to DC power using the supplied AC adapter.
2. Remove any protective caps on fiber cables and/or input receptacles. Connect BNC Coax input/outputs and Fiber input/outputs to desired input/output connectors. This provides the basic conversion connections. Unused connections do not require termination.

	<p>CLASS 1 LASER PRODUCT IEC 60825-1:2007 Caution - INVISIBLE LASER RADIATION. AVOID EXPOSURE TO THE BEAM.</p>
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Status Indicator

BlueBox™ EOOE has **Status** LEDs (one LED for the fiber input channel and one for the coax input channel) on the side of the unit which function as follows:

- **Solid Green** – Recognized SDI present.
- **Green Flash** – No SDI present, or not recognized as SDI.

Reclocker Auto/Bypass Switches

BlueBox™ EOOE DIP switches SW2 and SW3 (for COAX IN and FIBER IN inputs respectively) allow for reclocker Auto-Bypass when recognized SDI is not being received, or Always Bypass reclocking. Refer to illustration on rear label on unit for switch positions.

Crosspoint Control Using DIP Switch Bank

BlueBox™ EOOE switches SW4 and SW5 provide the following I/O crosspoint routing as shown below.

SW4	SW5	Routing	
OFF	OFF	Coax IN > Fiber OUT Fiber IN > Coax OUT	<p>Diagram showing a 2x2 crosspoint switch. COAX IN and FIBER IN are on the left, and COAX OUT and FIBER OUT are on the right. Solid lines connect COAX IN to FIBER OUT and FIBER IN to COAX OUT. Dashed lines represent the other two possible connections.</p>
OFF	ON	Coax IN > Fiber OUT Coax IN > Coax OUT	<p>Diagram showing a 2x2 crosspoint switch. COAX IN and FIBER IN are on the left, and COAX OUT and FIBER OUT are on the right. Solid lines connect COAX IN to FIBER OUT and COAX IN to COAX OUT. A dashed line connects FIBER IN to FIBER OUT. An 'x' is marked at the FIBER IN to COAX OUT connection.</p>
ON	OFF	Fiber IN > Fiber OUT Fiber IN > Coax OUT	<p>Diagram showing a 2x2 crosspoint switch. COAX IN and FIBER IN are on the left, and COAX OUT and FIBER OUT are on the right. Solid lines connect FIBER IN to FIBER OUT and FIBER IN to COAX OUT. Dashed lines represent the other two possible connections. An 'x' is marked at the COAX IN to FIBER OUT connection.</p>
ON	ON	Fiber IN > Fiber OUT Coax IN > Coax OUT	<p>Diagram showing a 2x2 crosspoint switch. COAX IN and FIBER IN are on the left, and COAX OUT and FIBER OUT are on the right. Solid lines connect FIBER IN to FIBER OUT and COAX IN to COAX OUT. Dashed lines represent the other two possible connections.</p>

Configure Select Using DIP Switch Bank

BlueBox™ EOOE can be used in a local control mode using DIP switches to configure settings, or via USB remote control. The USB remote also provides an optical Tx power meter for Tx confidence assessment. Refer to diagram on unit label for switch positions.

- **If using DIP switch control**, make certain switch SW1 is set to **ON**. USB remote control is locked out in this mode.
- **If using USB remote control**, make certain switch SW1 is set to **OFF**. DIP switch local control is locked out in this mode.

Warranty and Service Information

Cobalt Digital Inc. Limited Warranty

This product is warranted to be free from defects in material and workmanship for a period of five (5) years from the date of shipment to the original purchaser, except that 4000, 5000, 6000, 8000 and Blue Box series power supplies, and Dolby® modules (where applicable) are warranted to be free from defects in material and workmanship for a period of one (1) year.

Cobalt Digital Inc.'s ("Cobalt") sole obligation under this warranty shall be limited to, at its option, (i) the repair or (ii) replacement of the product, and the determination of whether a defect is covered under this limited warranty shall be made at the sole discretion of Cobalt.

This limited warranty applies only to the original end-purchaser of the product, and is not assignable or transferrable therefrom. This warranty is limited to defects in material and workmanship, and shall not apply to acts of God, accidents, or negligence on behalf of the purchaser, and shall be voided upon the misuse, abuse, alteration, or modification of the product. Only Cobalt authorized factory representatives are authorized to make repairs to the product, and any unauthorized attempt to repair this product shall immediately void the warranty. Please contact Cobalt Technical Support for more information.

To facilitate the resolution of warranty related issues, Cobalt recommends registering the product by completing and returning a product registration form. In the event of a warrantable defect, the purchaser shall notify Cobalt with a description of the problem, and Cobalt shall provide the purchaser with a Return Material Authorization ("RMA"). For return, defective products should be double boxed, and sufficiently protected, in the original packaging, or equivalent, and shipped to the Cobalt Factory Service Center, postage prepaid and insured for the purchase price. The purchaser should include the RMA number, description of the problem encountered, date purchased, name of dealer purchased from, and serial number with the shipment.

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Specifications

Item	Description/Specification
Part Number/ Nomenclature	- BBG-EOOE-MK2-FC 3G/HD/SD-SDI / ASI / MADI Fiber Optic Transport Transceiver (Type FC fiber connectors) - BBG-EOOE-MK2-ST 3G/HD/SD-SDI / ASI / MADI Fiber Optic Transport Transceiver (Type ST fiber connectors) - BBG-EOOE-MK2-LC 3G/HD/SD-SDI / ASI / MADI Fiber Optic Transport Transceiver (Type LC fiber connectors)
Power:	5-16 VDC, 2.4 W DC Power Connectors USB Mini and coaxial locking connector (for use with supplied Cobalt power adapter)
Standards/Data Rates supported:	SMPTE 424M, 292M, 259M, 344M, 305M, DVB-ASI 5Mbps to 3Gbps pathological pattern operation (does not support AES-3id audio or other standards using data rates < 5Mbps)
Input (Fiber-to-Coax Path; Fiber Receive):	(1) Fiber input. FC, ST, or LC connectors per ordered configuration (see Part Number/Nomenclature above) Wavelength: 1260 to 1620 nm Sensitivity/Input Usable Range: -18 dBm min; -1 dBm max
Output (Fiber-to-Coax Path; Fiber Receive)	(1) 75Ω BNC. Reclocking automatically engaged for recognized signal standards; bypassed for unrecognized standards. Return Loss: >18 dBm up to 270 MHz
Input (Coax-to-Fiber Path; Fiber Transmit)	(1) 75Ω BNC. Return Loss: >18 dBm up to 270 MHz
Output (Coax-to-Fiber Path; Fiber Transmit)	(1) Fiber output. FC, ST, or LC connectors per ordered configuration (see Part Number/Nomenclature above). Reclocking automatically engaged for recognized signal standards; bypassed for unrecognized standards. Wavelength: 1310 nm Power: -5.0 dBm (min)
Dimensions (WxHxD):	5.5" x 3" x 1" (including connector projections) (139 x 77 x 26 mm)
Operating Temperature Range	32°F to 122°F (0°C to 50°C)



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BBG-EOOE-MK2-OM (V1.0)

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