

The *FIRST* Space-Rated **Active** **Optical Cable** *Available TODAY!*

SAOCF-11.19

FOCUS[®]

Revolutionary Data Communications for Space Applications

AirBorn is excited to introduce the latest disruptive technology to hit the space market in a generation. Our FOCUS[®] active optical cable technology now embodies the fully-qualified, Space-Rated Active Optical Cable (SAOC[®]). Built on our proven, high-speed verSI connector platform, SAOC[®] exemplifies all the benefits of fiber with the ease & reliability of copper.

The verSI-based SAOC[®] is designed to operate at 12 Gb/s. Radiation-hardened and non-outgassing components are used throughout the assembly to assure complete reliability. Optimizing size and weight factors in the design, we made certain the SAOC[®] is ideal for spaceflight and the extreme conditions that come to bear during a launch.

AirBorn

Performance*

Parameter	Symbol	Unit	Min	Max
Supply Voltage	Vcc	V	-0.3	3.3
Storage Temp Range	Ts	C	-55	125
Case Operating Temp. Range	Ta	C	-40	90

Parameter	Min	Typical	Max
Pressurization	10-9 torr	-	775 torr
TID Radiation hardening		100 krad	
SEE MeVcm ² /mg		> 40	
Fiber Tension			30 N
Fiber Bend Radius			7 cm

Parameter	Unit	Min	Typical	Max
Operating Voltage	Vdd1	3.15	3.3	3.45
Data Rate per Channel	Gbps	1.25	-	12.5
Power consumption	W	-	670mW	1.1
Bit Error Rate	BER	-	-	10 ₋₁₅
Tx Differential Input voltage	mVp-p	500	1000	1600
Input Differential Impedance	Ω	-	100	-
Rx Differential Input voltage	mVp-p	500		950

*All data subject to final qualification test data completion.

Pin-Out Details*

Pin Out	Signal	Pin Out	Signal	Pin Out	Signal
A1	MODSELL	C1	GND	E1	RESETL
A2	GND	C2	GND	E2	GND
A3	GND	C3	GND	E3	GND
A4	RX2-N	C4	RX1-N	E4	SCL
A5	RX2-P	C5	RX1-P	E5	SDA
A6	GND	C6	GND	E6	GND
A7	GND	C7	GND	E7	GND
A8	TX3-P	C8	TX4-P	E8	FLAGL
A9	TX3-N	C9	TX4-N	E9	3.3V
A10	GND	C10	GND	E10	3.3V
B1	GND	D1	GND		
B2	RX4-N	D2	RX3-N		
B3	RX4-P	D3	RX3-P		
B4	GND	D4	GND		
B5	GND	D5	GND		
B6	TX1-P	D6	TX2-P		
B7	TX1-N	D7	TX2-N		
B8	GND	D8	GND		
B9	GND	D9	GND		
B10	GND	D10	MODRDYL		

*All the above pin-out details are specific to the verSI SAOC interconnect only.