

# Optical Fibre 10MHz Reference Transmit Module



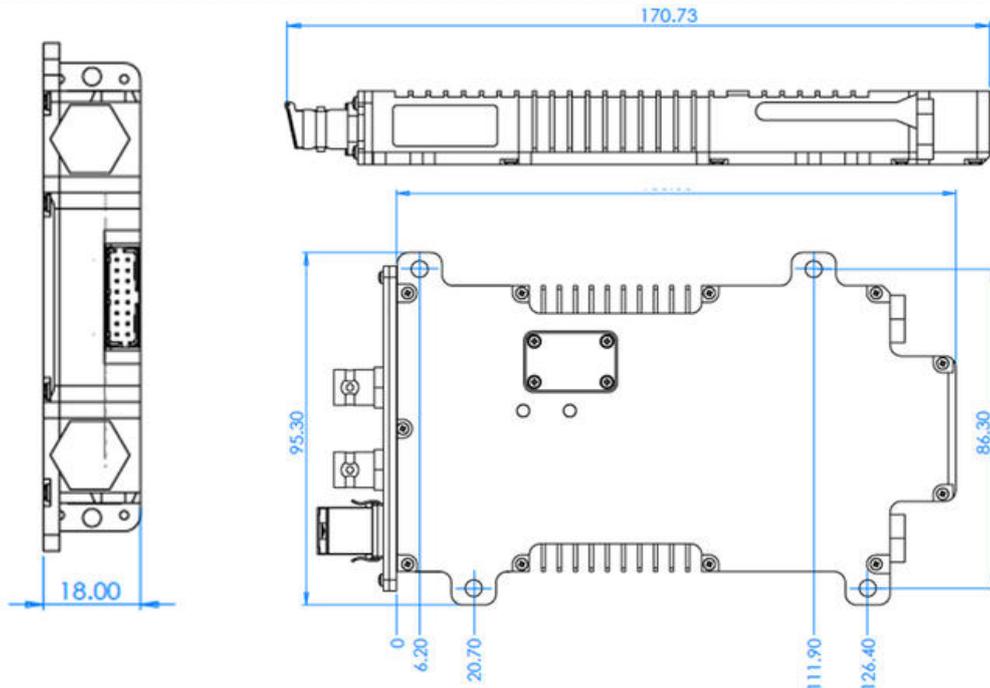
RF Parameters			
Frequency Range		10MHz	
Return Loss	50 ohm SMA	18 dB typ., 12dB min	All RF connectors are female. All RF ports are DC blocked
	50 ohm BNC	18 dB typ., 12dB min	
RF Input Signal Range		0 to +15dBm (total power)	Operational i/p range
Max RF input		16dBm total power	Damage level, NOT operational.
Monitor Port		20dB ±3d	
Phase Noise	0.1Hz	-114 dBc/Hz typical, -98 dBc/Hz maximum	
	1Hz	-123 dBc/Hz typical, -117 dBc/Hz maximum	
	10Hz	-130 dBc/Hz typical, -124 dBc/Hz maximum	
	100Hz	-141 dBc/Hz typical, -135 dBc/Hz maximum	
	1000Hz	-153 dBc/Hz typical, -147 dBc/Hz maximum	
	10000Hz	-153 dBc/Hz typical, -147 dBc/Hz maximum	
	100000Hz	-153 dBc/Hz typical, -147 dBc/Hz maximum	
Optical Parameters			
Optical Wavelength		1310 ± 10 nm	
Laser Type		DFB	Two stage optical isolator for improved performance
Optical Power Output		5.5 ±2 dBm	
Optical Connectors		FC/APC SC/APC	Single mode fibre Use angle polish connectors only

Non RF Parameters		
Module swap	Hot swap	
Power supply voltage	12V ±1V	Single or dual redundant power
Power consumption	6W typical	
MTBF	TBD hours	Module MTBF

Control, Monitoring & Alarms		
Control	Local	Switch 4 OFF = AGC ON = Fixed Gain
Temperature Monitors	Each module monitored	All are independently monitored and reported.
Monitoring includes	Laser Optical Output Power RF input power, -10 to +10 dBm Status of amplifier stages	In each module Local via LED.
AGC	Factory set	Maintains optimum level of laser modulation over input range

Environmental conditions		
Operating Temperature	-20°C to +65°C	
Storage Temperature	-40°C to +90°C	
Location	Indoor use	Outdoor Use available in a different Model Number
Humidity	20 to 90% non-condensing	Relative Humidity
Altitude	10,000 ft AMSL operational 30,000 ft AMSL storage/transport	Above mean sea level
Mass	0.35kg	
Size	87.8 x 18 x 150 mm	See below

## Physical Dimensions (mm)



Note 1: The specification is subject to regular reviews and will be updated from time to time as part of our continuing product development and improved spec accuracy.  
 Note 2: Operation beyond the quoted limits stated above may cause instantaneous and permanent damage.