

DIGITAL 1000 Narrowband 125MHz ODU

RF over IP/Digital IF

Model DI-EDM-S2-1601 is a narrowband DIGITAL 1000 series unit operating at up to 125MHz of instantaneous bandwidth. It has a single full duplex RF channel. Housed in an outdoor unit.



RF Parameters	
Capacity	One channel, full duplex
Instantaneous Bandwidth	125MHz
Sample Rate	750MSPS
ADC Sample Depth	12 bits per I or Q sample
DAC Sample Depth	16 bits per I or Q sample
Digital Data Transport	Waterproof Fibre Optic connector
Data Protocol	IEEE-ISTO Std 4900-2021 (DIFI) Information Class 0x0000, 0x0002, 0x0003, 0x0004
DIFI Sample Depth	8-16 bits per I or Q Sample
Output Bandwidth	10 - 125MHz
Input & Output Ports	RF: 50Ω SMA 1PPS: 50Ω SMA 10MHz: 50Ω SMA Sample Data: SFP+ Control: Waterproof RJ45
Frequency	850 - 2450MHz
Flatness (dB)	±0.5
Input Gain Control (dB)	15 (Manual in 0.25dB steps)
Output Gain Control (dB)	10 (Manual in 0.25dB steps)
Input Slope Control (dB)	10
Output Slope Control (dB)	10
Input Return Loss (dB)	17 typ.
Output Return Loss (dB)	17 typ.
SFDR	60dBc
Out of Band Rejection	50dB
Noise Figure	24dB
1dB GCP (dBm)	-5
OIP3 (dBm)	5



Power	
RF Power Detect	Range -50dBm to -0dBm (Total power across RF band) Accuracy +/- 2dB
Input RF Power	0dBm (Absolute total maximum)
Module DC Power	12 - 24VDC
DC Consumption	50W (Full load, max. consumption at steady rate)
System Control	
User Alarms	Via Ethernet
Monitoring	LEDs
Remote Control & Monitoring	REST API SNMP V3, V2C ETL Protocol
Physical & Environmental	
Operating Temperature	-40°C to 60°C
Storage Temperature	-20°C to +60°C
Storage Humidity	20 to 90% non-condensing
Operating Altitude	10,000 feet AMSL
Storage Altitude	30,000 feet AMSL
Shock (see Note 5)	MIL-STD-810H, Method 516.6, Procedure I - Functional Shock. Table 516.6-II, Terminal peak sawtooth pulse, Ground equipment 40 g 11 ms
Transport Vibration (see Note 5)	MIL-STD-810H. Method 514.6, Procedure II - Loose cargo transportation, Category 5 - Truck/trailer - loose cargo MIL-STD-810H. Method: 514.6, Procedure 1 - General Vibration, Category 20 - Ground vehicles ground mobile, wheeled vehicles
IP Rating	IP65
Salt Fog (see Note 5)	MIL-STD-810H Method: 509.5 5 % ± 1 % (by weight) Two cycles, 24 h wet + 24 h dry / cycle
Weight	1.9kg
Dimensions	289mm x 124mm x 83mm (max. including connector protectors)
Module Finish	RAL9005 black (textured)
Spec. Version	0.6

Note 1: Typical parameters are guide figures and measured data may deviate from the quoted figures. ETL endeavours to exceed the quoted typical parameters where practically possible.

Note 2: Operation beyond the quoted limits stated above may cause instantaneous and permanent damage. For reliable long term operation do not exceed the parameters given in above.

Note 3: The spec table 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 4: This product is classified as Dual Use and is subject to United Kingdom export control regulations.

Note 5: MIL-STD-810 test methods are referenced solely as a globally recognised environmental test regime to validate ruggedness and durability for commercial applications such as broadcast (SNG), maritime, and outdoor installations. The product is not designed for military specific use and does not incorporate military-specific functionality.