

# E10G Datasheet

10Gbps E Band

All Outdoor



Australia's Microwave Link Manufacturer

# E10G Specifications

## General

Operating Frequency Range	71-86 GHz
Configurations	All outdoor (Auto-pointing on 1200mm)
Capacity	5/10 Gbps
Modulation	QPSK / 16QAM
Error Correction	LDPC
Equalisation	Transmit side pre-distortion and receiver post equalisation

## Standards Compliance

EMC	EN 301 489-1, EN 301 489-4
Operation	ETS 300 019, Class 4.1
Storage	ETS 300 019, Class 1.2
Transportation	ETS 300 019, Class 2.3
Safety	IEC 60950-1/UL 60950-1
Water Ingress	ANSI/IEC 60529
Lightning Protection	IEC 61000-4-5 Class 5, GR-1089-CORE 4.11 Type 1, 3, 5 & 6, ITU K21, IEC 61643-21

## Environmental

Operating Temperature	-25 to 50C (-13 to 122 F) in full sun (Wider temp spec available on request)
Humidity	0 to 100% non-condensating
Altitude	0-2000 metres

## RF Operation

TX Frequency	E Band (71-75, 81-85 GHz)
TX Power	22dBm, 27dBm (Higher powers available on request)
Modulation	QPSK and 16QAM
Air interface	- 4 foot (1200mm) antenna reflector - 2 foot (600mm) antenna reflector

## Pointing (4 Foot Antenna)

Operational Characteristics	7 degree range, 24GHz 2 Dimensional monopulse
Initial Acquisition time	<1 minute
Re-Acquisition time	0.1 sec (after short outage)
Pointing Accuracy	50 millidegrees
Pointing Operational Wind Speed	65mph (105km/hr)

## Digital Characteristics

Payload Throughput	5/10 Gbps Full duplex in 2.1 or 4.2GHz channel
10Gbps optical IEEE802	Dual LC
10Gbps ultra low latency proprietary Optical SFP	Dual LC (Optional)
10/100Mbps optical IEEE802 (M&C) Optical	Dual LC
RS422/RS232 utility interface	CIRC MIL-C-26482

## Emission Designators

Bandwidth	2.1Ghz (16QAM)	4.2Ghz (QPSK)	4.2Ghz (16QAM)
Emission Designator	2G10D2W	4G20G2W	4G20D2W

## System Gain dB

At IE-6 BER	195dB - QPSK 4.2GHz channel 188dB - 16QAM
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## Mac and Networking Support

Switching	Layer 2 at customer interfaces
Jumbo Frames	9 kbyte
Addressing	IPv4 and IPv6 support
Encryption	None
Management Access	Web interface

## Power Requirements

Power supply	48V (32 to 60V) DC
Power Consumption	250W per terminal maximum (1200mm) 100W per terminal maximum (600mm)

## IF Repeater

Interface	N Type (Rx and Tx)
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## Lightning Protection

Power Port	10kA GDT plus LPF
Auxiliary RS232/422 Port	GDT plus 2.5 kV isolation

## Monitoring and Support

Web Interface	HTTP via Ethernet M&C Optical Interface
SNMP	V2, Std/Private MIBs (via Optical M&C)
Port Switching	Payload remote switchable between ULL and IECC 802 port via SSH (not hitless)

## Hardware Requirements

Configuration	All outdoor unit with integrated antenna
Shroud Options	White (painted/power coated) spun aluminium with sun shield (1200 only)
Radome Options	Screw fixed ring radome (Pre-tensioned fabric cover - 1200 only)
Antenna Mount	Galvanized 4.5 i (114mm) pipe clamp with stabilizer bars
Interfaces	Circular MIL Spec Connector 4P Size 18 for power, fiber-optic for data, Coaxial N Type for IF repeater
Weight	230 lb (105 kg) - 1200mm 55 lb (25 kg) - 600mm
Environment rating	IP55
Design Life	10 years (excluding consumable components)

