

test

## Advanced Train Repeater Module 900 MHz (GSM and UMTS)

**ELECTRICAL DATA\***

Frequency UL Band 1 (MHz)	GSM 900, 890-915
Frequency DL Band 1 (MHz)	GSM 900, 935-960
Frequency UL Band 2 (MHz)	GSM 1800, 1710-1785
Frequency DL Band 2 (MHz)	GSM1800, 1805-1880
Frequency UL Band 3 (MHz)	UMTS, 1920-1980
Frequency DL Band 3 (MHz)	UMTS 2110-2170
Frequency UL Band 4 (MHz)	N/A
Frequency DL Band 4 (MHz)	N/A
Gain Adjustment Range	(1dBsteps), 30 dB
Gain Step Resolution	1 dB
Max Absolute Delay	<300 ns
Max Input Power in UL	+13 dBm damaging level
Output Power DL, band 1, 4 carrier	21dBm/carrier
Output Power DL, band 1, 8 carrier	18 dBm/carrier
Output Power DL, band 2, 4 carrier	23 dBm/carrier
Output Power DL, band 2, 8 carrier	20 dBm/carrier
Output Power DL, band 3, 4 carrier	30 dBm/carrier
Output Power DL, band 3, 8 carrier	27 dBm/carrier
Output Power DL, band 4, 4 carrier	N/A
Output Power DL, band 4, 8 carrier	N/A
Noise Figure (excluding fiber)	GSM900 4 dB, GSM1800 4 dB, UMTS2100 4.5 dB
Intermodulation band 1	GSM 900, -36 dBm
Intermodulation band 2	GSM 1800, -30 dBm
Intermodulation band 3	N/A
Intermodulation band 4	N/A

**MISCELLANEOUS SPECIFICATIONS\***

Alarm	Fault, LED and by remote control
Power Supply	110 - 240 VAC, 110 DC or -24 to -48 VDC
Power Consumption	< 50 W

**MECHANICAL DATA\***

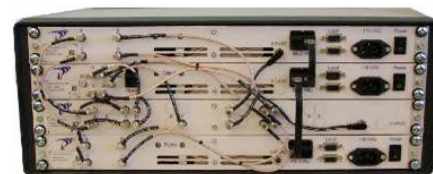
Dimension (WxHxD) mm (ft)	440 x 530 x 280 (1' 5"x1'9"x11")
Weight kg (lbs)	< 3 (6.6)
RF Connection	N-type female or 7/16

**ENVIRONMENTAL DATA\***

Operating Temperature Celsius	-25 to +55
Housing Specification	NEMA 4 / IP67
Ingression Protection	Lock

**APPROVALS AND TESTS\***

Safety	EN/ IEC 60 950
Environment	ETS 300 019
Regulatory Compliance EMC	EN301 489-1, TS125 113
Regulatory Compliance Radio	ETS300 609-4, TS125 143



\* All specifications subject to change.

Note: Performance is affected by the way Donor and Service antenna is configured (any combination of separate or combined connection can be ordered)