



Stella Doradus Ireland Ltd.

UMTS Machine-to-Machine Amplifier

Part No.: SD-M2Mamp-W



Mobile devices (radio cards, phones etc) usually have only 18dBm maximum power output on the uplink. The base station they are in communication with usually has a much greater power output, usually greater than 33dBm. This means that the UMTS coverage is uplink limited.

The Stella Doradus UMTS M2M Amplifier increases the uplink output power from 18dBm up to 30dBm. This greatly improves the signal coverage experienced by the mobile device user, resulting in improved data throughput, and minimised coverage black spots. The uplink gain is 12dB, the downlink gain is 14dB.

The amplifiers include AGC on the uplink, a "4 green LED" signal strength indicator. The first LED lights when the uplink signal strength reaches 22dBm, the LEDs light up progressively as the power output increases until all four are lit at maximum uplink output power. This indicates to the user when the Amplifier is creating a good connection which he otherwise would not have achieved.

In addition to the standard single input/single output amplifier, there are versions that can be used to combine the signals of 2,3,4 radio cards. The amplifier in these configurations effectively becomes an amplified combiner, with the added benefits described above.

Specifications		Mechanical Specifications	
No. of Ports	Basestation facing Port: 1 x SMA	Length	13.7cm
	Radio card facing Port:1, 2, 3, 4 x SMA	Width	13cm
Bandwidth	1.92 - 2.17GHz	Depth	3.5cm
Gain	Uplink Gp =12dB	Weight	0.5Kg
	Downlink Gp =14dB	Windage(at 215kmph)	NA, indoor use only
Pass band ripple	≤ 2dB	Mounting	4 x 5mm holes
I/O impedance	50 ohm/N connector		
Max signal strength uplink	30dBm/1 port	Materials	
	29dBm/2 port		
	28dBm/4 port		
Max signal strength downlink	10dBm	Radome	HDG Steel
Ambient Temperature	-30 °C to +70°C		
Power supply input	9-30VDC / 3A		