

**PRODUCT  
SPECIFICATION**



Designed for the highest reliability even in the most demanding installation environments

## OneBase™ Dual Band TMA

AWS and PCS tower mounted amplifier in a single housing

The tower mounted amplifiers from Andrew Wireless Solutions optimize network performance and represent the ideal solution for coverage and capacity enhancement.

By improving uplink performance, the tower mounted amplifier (TMA) ensures optimum coverage of fringe areas, weak spots, and indoor locations. The unit is easy to install in any wireless system and guarantees:

**Improved sensitivity**, reducing dropped calls and failed connection attempts.

**Enhanced signal quality**, improving voice clarity and data speed.

**Lower handset output**, extending talk time, reducing interference in GSM/EDGE, UMTS, and CDMA systems.

The dual band, dual duplex TMA is part of the OneBase™ product family, which combines Andrew products and technology into complete solutions for

use in integrated base station systems. The self-contained body is engineered to ensure the highest reliability in severe environments while featuring a compact size and attractive appearance.

The PCS/AWS TMA includes pole mounting hardware.

- 12 dB gain
- Full band operation in both PCS and AWS bands
- AISG compatible RET control
- Lightning protection provided by a built-in multi-stage surge suppressor
- Sealed to protection class IP67
- In-line connectors
- Bypass LNA
- VSWR monitoring alarm
- Automatic dc power switching
- Field upgradeable firmware

# OneBase™ Dual Band TMA

## Electrical

### UPLINK

Frequency range	
AWS band, MHz	1710–1755
PCS band, MHz	1850–1910
Gain, dB	12 ± 1
Total group delay – maximum	
AWS band, ns	40
PCS band, ns	150
Delay variation – any 5 MHz BW – maximum	
AWS band, ns	8
PCS band, ns	55
Group delay distortion – any 240 kHz BW, ns	10 max.
Noise figure – mid band, typical	
AWS band, dB	1.2
PCS band, dB	1.35
Noise figure – maximum	
AWS band, dB	1.6
PCS band, dB	2.1
Return loss, dB	18 minimum
Output IP3, dBm	+22 typical

### DOWNLINK

Frequency range	
AWS band, MHz	2110–2155
PCS band, MHz	1930–1990
Insertion loss	
AWS band, dB	0.22 typical, 0.3 max.
PCS band, dB	0.6 typical, 0.7 max.
Group delay	
AWS band, ns	15
PCS band, ns	55
Delay variation – any 5 MHz BW – maximum	
AWS band, ns	8
PCS band, ns	18
Return loss, dB	18 minimum
IMD at antenna port, (2 x +43 dBm), dBm	-112 typical
Power handling – operational, dBm (watts)	+53 (200)
Power handling – survival, dBm (watts)	+57 (500)

### VSWR Alarm

Alarm threshold – return loss, dB	<9.54 ± 2
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### AISG

Protocol	AISG 2.0 standard
	AISG 1.1 optional
RET Antenna support	24 VDC & RS-485

### POWER

Power supply voltage, Vdc	7–30
Operating current, mA	130 ± 20 at 12 V
	105 ± 20 at 15 V
	70 ± 15 at 24 V
Failure current consumption, mA	190 ± 10 at 10–18 V

## Mechanical

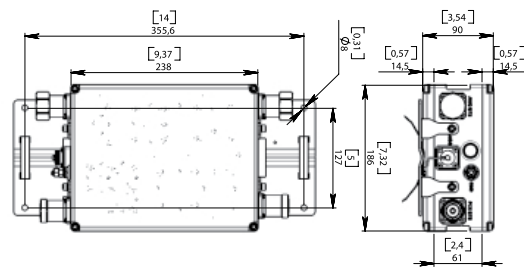
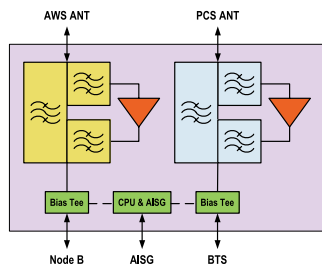
Height, depth, width, mm (in)	238 x 90 x 186
	(9.4 x 3.5 x 7.3)
Weight w/o mounting hardware, kg (lb)	6.3 (13.9)
Finish	Gray paint
Connectors	
RF	7-16 DIN female (longneck)
AISG	8 pin circ., IEC 60130
Ground screw diameter, in	1/4 in

## Environmental

Operating temperature range, °C	-40 to +65
Ingress protection	IP67
Lightning protection	
Antenna port	dc ground
BTS port	20 kA, 8/20 μs

## Part Number

Dual band TMA, AWS/PCS	E15508P78
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### Ordering Information: SPECIFY MODEL NUMBER TO ORDER TMA WITH ACCESSORIES AS SHOWN

Model: ETT19V2S12UB

Description: Dual band TMA, AWS/PCS

Included Accessories: Mounting hardware, Connector caps (2)



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