



Twin TMA PCS/WCS with 555-894 MHz bypass, 4.3-10 connectors

Product Classification

Product Type Tower mounted amplifier

General Specifications

RF Connector Interface 4.3-10 Female

RF Connector Interface Body Style Long neck

Dimensions

Height 247 mm | 9.724 in

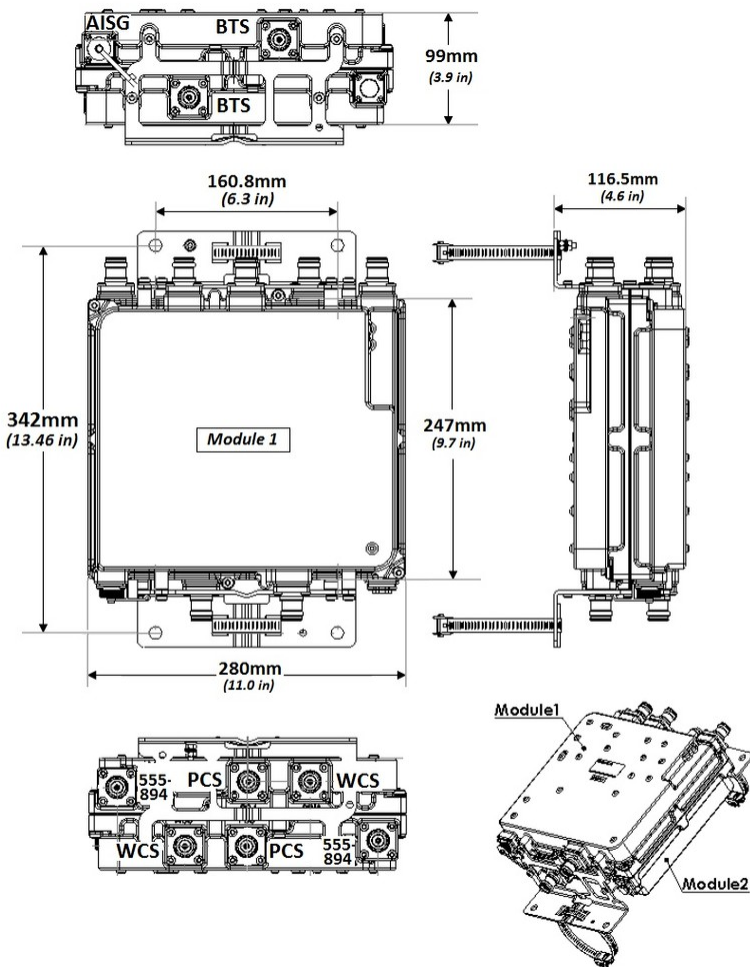
Width 280 mm | 11.024 in

Depth 99 mm | 3.898 in

Ground Screw Diameter 5 mm | 0.197 in

TMAT1923B68-31-43 | E14R00P03

Outline Drawing



Electrical Specifications

License Band, Band Pass CEL 850 | PCS 1900 | USA 700 | USA 750

License Band, LNA PCS 1900 | WCS 2300

Electrical Specifications, dc Power/Alarm

| | |
|---|------------------------------|
| dc Switching/Redundancy | Yes |
| Lightning Surge Current | 10 kA |
| Lightning Surge Current Waveform | 8/20 waveform |
| Operating Current at Voltage | 210 mA @ 12 Vdc |
| Alarm Current, CWA Mode | 150 mA +/- 10 mA (10-18 VDC) |

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Electrical Specifications, AISG

| | |
|--------------------------------|---------------------|
| AISG Carrier | 2.176 MHz ± 100 ppm |
| AISG Connector | 8-pin DIN Female |
| AISG Connector Standard | IEC 60130-9 |
| Protocol | AISG 2.0 |
| Voltage, AISG Mode | 10–30 Vdc |

Electrical Specifications

| | | | |
|---|--|---------------|---------------|
| Sub-module | 1 2 | 1 2 | 1 2 |
| Branch | 1 | 2 | 3 |
| Port Designation | ANT 555-894 | ANT PCS | ANT WCS |
| AISG 2.0 Device Subunit | | E25A01P11 1/3 | E25A01P11 3/4 |
| License Band | CEL 850, Band Pass USA 700, Band Pass USA 750, Band Pass | PCS 1900, LNA | WCS 2300, LNA |
| Return Loss - Bypass Mode, typical, dB | | 18 | 18 |

Electrical Specifications Rx (Uplink)

| | | |
|--|------------------|------------------|
| Frequency Range, MHz | 1850–1910 | 2305–2315 |
| Gain, nominal, dB | 13 | 13 |
| Noise Figure, typical, dB | 1.4 | 1.4 |
| Return Loss, minimum, dB | 20 | 20 |
| Insertion Loss - Bypass Mode, typical, dB | 2.4 | 2.4 |

Electrical Specifications Tx (Downlink)

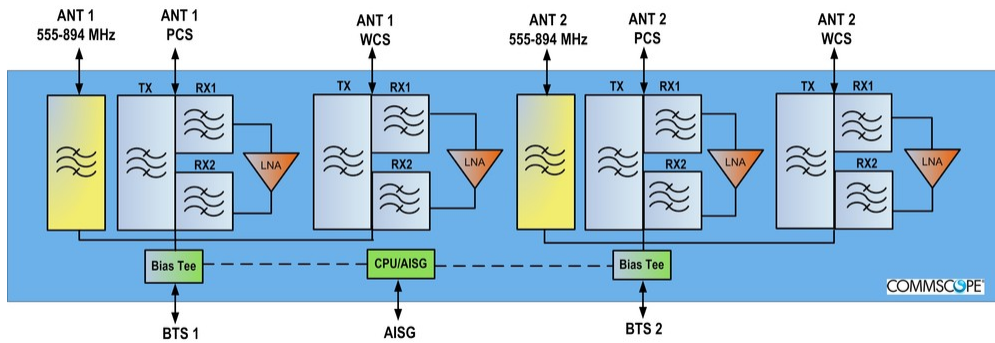
| | | |
|-------------------------------------|-------------------|-------------------|
| Frequency Range, MHz | 1930–1990 | 2350–2360 |
| Insertion Loss, typical, dB | 0.45 | 0.45 |
| Return Loss, minimum, dB | 20 | 20 |
| Input Power, RMS, maximum, W | 200 | 200 |
| Input Power, PEP, maximum, W | 2000 | 2000 |
| 3rd Order PIM, maximum, dBc | -153 | -153 |
| 3rd Order PIM Test Method | 2 x 20 W CW tones | 2 x 20 W CW tones |

Electrical Specifications, Band Pass

| | |
|------------------------------------|----------------|
| Frequency Range, MHz | 555–894 |
| Insertion Loss, maximum, dB | 0.2 |

| | |
|-------------------------------------|------|
| Return Loss, minimum, dB | 20 |
| Isolation, minimum, dB | 60 |
| Input Power, RMS, maximum, W | 200 |
| Input Power, PEP, maximum, W | 2000 |
| 3rd Order PIM, maximum, dBc | -153 |

Block Diagram



Environmental Specifications

| | |
|---------------------------------------|--------------------------------------|
| Operating Temperature | -40 °C to +65 °C (-40 °F to +149 °F) |
| Relative Humidity | Up to 100% |
| Corrosion Test Method | IEC 60068-2-11, 30 days |
| Ingress Protection Test Method | IEC 60529:2001, IP67 |

Packaging and Weights

Weight, net 9.7 kg | 21.385 lb

* Footnotes

License Band, Band Pass License Bands that are to be passed through with no amplification

License Band, LNA License Bands that have RxUplink amplification