

Dual Band Tower Mounted Amplifier, 700//800 MHz, 12 dB, 2 BTS & 2 ANT ports, AISG with 1 RET connector (2 devices with 2 sub-units), with 4.3-10 connectors

- Industry leading PIM performance
- New 4.3-10 connectors for improved PIM performance and size reduction
- 2 input ports and 2 output ports
- Designed to boost UP-Link Coverage and KPIs
- Automatic LNA by-pass function
- Connectors "in line"
- TMA is operating in AISG mode
- Single AISG with 1 RET connector
- 2 devices with 2 sub-units
- Built in lightning protection

#### **Product Classification**

Product Type 1-BTS:1-ANT (Uniplex) | Tower mounted amplifier

#### General Specifications

Color Gray
Modularity 2-Twin

Mounting Pipe HardwareBand clamps (2)RF Connector Interface4.3-10 Female

#### Dimensions

 Height
 140 mm | 5.512 in

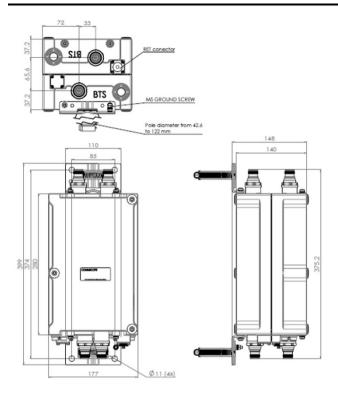
 Width
 177 mm | 6.969 in

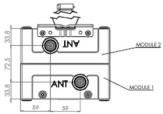
 Depth
 260 mm | 10.236 in

**Mounting Pipe Diameter Range** 42.6–122 mm

## Outline Drawing







### **Electrical Specifications**

License Band, Band Pass APT 700

License Band, LNA APT 700 | CEL 900 | EDD 800

## Electrical Specifications, dc Power/Alarm

dc Switching/Redundancy Yes
Lightning Surge Current 10 kA

**Lightning Surge Current Waveform** 8/20 waveform

### Electrical Specifications, AISG

AISG Connector 8-pin DIN Female
AISG Connector Standard IEC 60130-9

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| Protocol                                  | AISG 2.0                           |              |
|---|------------------------------------|--------------|
| Voltage, AISG Mode                        | 10-30 Vdc                          |              |
|   |                                    |              |
| Electrical Specifications                 |                                    |              |
| Sub-module                                | 1   2                              | 1   2        |
| Branch                                    | 1                                  | 2            |
| Port Designation                          | ANT 700                            | ANT 800      |
| License Band                              | APT 700, Band Pass<br>APT 700, LNA | EDD 800, LNA |
| Return Loss, typical, dB                  | 20                                 | 20           |
| Return Loss - Bypass Mode, typical, dB    | 14                                 | 14           |
| Electrical Specifications Rx              | (Uplink)                           |              |
| Frequency Range, MHz                      | 703-733                            | 832-862      |
| Bandwidth, MHz                            | 30                                 | 30           |
| Gain, nominal, dB                         | 12                                 | 12           |
| Noise Figure, typical, dB                 | 1.25                               | 1.3          |
| Group Delay Variation, maximum, ns        | 30                                 | 60           |
| Group Delay Variation Bandwidth, MHz      | 5                                  | 5            |
| Total Group Delay, maximum, ns            | 120                                | 220          |
| Total Group Delay, typical, ns            | 90                                 | 180          |
| Return Loss, minimum, dB                  | 16                                 | 16           |
| Insertion Loss - Bypass Mode, typical, dB | 1.8                                | 1.7          |
| Electrical Specifications Tx              | (Downlink)                         |              |
| Frequency Range, MHz                      | 758-788                            | 791-821      |
| Bandwidth, MHz                            | 30                                 | 30           |
| Insertion Loss, maximum, dB               | 0.7                                | 0.7          |
|   |                                    |              |

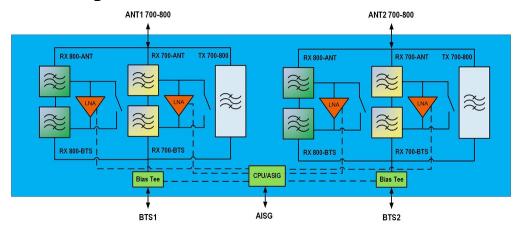
| Frequency Range, MHz                 | 758-788 | 791-821 |
|--------------------------------------|---------|---------|
| Bandwidth, MHz                       | 30      | 30      |
| Insertion Loss, maximum, dB          | 0.7     | 0.7     |
| Insertion Loss, typical, dB          | 0.5     | 0.5     |
| Group Delay Variation, maximum, ns   | 10      | 18      |
| Group Delay Variation Bandwidth, MHz | 5       | 5       |
| Total Group Delay, maximum, ns       | 45      | 55      |
| Total Group Delay, typical, ns       | 35      | 45      |
| Return Loss, minimum, dB             | 18      | 18      |
| Return Loss, typical, dB             | 20      | 20      |
| Input Power, RMS, maximum, W         | 200     | 200     |

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Input Power, PEP, maximum, W 1000 1000 3rd Order PIM, typical, dBc -162 -162

**3rd Order PIM Test Method** Two +43 dBm carriers Two +43 dBm carriers

#### Block Diagram



#### **Environmental Specifications**

**Operating Temperature**  $-40 \,^{\circ}\text{C}$  to  $+65 \,^{\circ}\text{C}$  ( $-40 \,^{\circ}\text{F}$  to  $+149 \,^{\circ}\text{F}$ )

**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

**Included** Mounting hardware

Volume 7 L

**Weight, net** 11 kg | 24.251 lb

### Regulatory Compliance/Certifications

Agency Classification

ISO 9001:2015 Designed, manufactured and/or distributed under this quality management system

### \* 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

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