

Penta Band Tower Mounted Amplifier, 700/850/900/1800/2100, 3 devices - 2 subunits each, with 4.3-10 connectors

- New 4.3-10 connectors for improved PIM performance and size reduction
- Industry leading PIM performance
- 2 input ports and 6 output ports
- Designed to boost UP-Link Coverage and KPIs
- 3 devices with 2 sub-units
- Single AISG with 1 RET connector
- RET interface to control antenna RET actuators with AISG standard

This product will be discontinued on: December 31, 2024

#### **Product Classification**

**Product Type** 1-BTS:2-ANT (Diplex) | Tower mounted amplifier

#### General Specifications

Color Gray
Modularity 2-Twin

Mounting Pole | Wall

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

#### **Dimensions**

 Height
 314 mm | 12.362 in

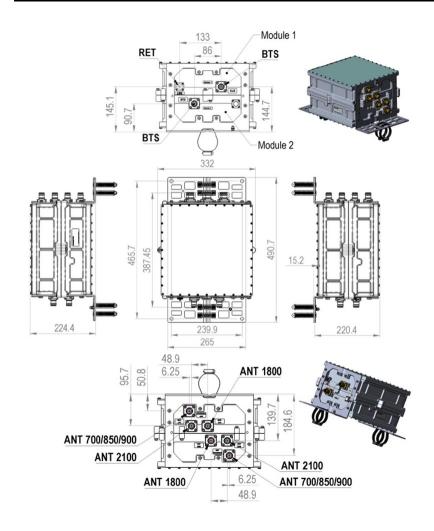
 Width
 310 mm | 12.205 in

 Depth
 206 mm | 8.11 in

 Mounting Pipe Diameter Range
 42.6–122 mm

#### Outline Drawing





# **Electrical Specifications**

**License Band, Band Pass** APT 700 | CEL 850 | CEL 900 | DCS 1800 | IMT 2100

**License Band, LNA** DCS 1800 | IMT 2100 | IMT 2600

#### 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	7-30 Vdc

# **Electrical Specifications**

Sub-module	1   2	1   2	1   2	1   2	1   2
Branch	1	2	3	4	5
Port Designation	ANT1	ANT	ANT	ANT	ANT
License Band	APT 700, Band Pas	ss CEL 850, Band Pas	s CEL 900, Band Pas	s DCS 1800, Band Pass	IMT 2100, Band Pass
Return Loss, typical, dB	20	20	20	20	20
Return Loss - Bypass Mode, typical, dB	20	16	16	16	16

# Electrical Specifications Rx (Uplink)

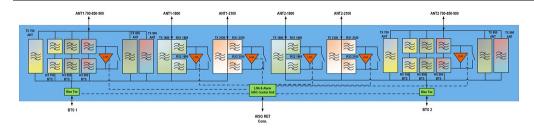
Frequency Range, MHz	723-748	825-835	906.8-915	1710-1785	1920-1980
Bandwidth, MHz	25	10	8.2	75	60
Gain, nominal, dB	12	12	12	12	12
Noise Figure, typical, dB	1.3	1.3	1.4	1.3	1.4
Total Group Delay, typical, ns	120	180	150	100	70
Insertion Loss - Bypass Mode, typical, dB	2.1	2.1	2.1	2.1	2

### Electrical Specifications Tx (Downlink)

Frequency Range, MHz	778-803	870-880	951.8-960	1805-1880	2110-2170
Bandwidth, MHz	25	10	8.2		60
Insertion Loss, typical, dB	0.5	0.35	0.5	0.5	0.4
Total Group Delay, typical, ns	70	60	180	50	25
Return Loss, typical, dB	21	20	20	20	20
Input Power, RMS, maximum, W	200	200	200		200
Input Power, PEP, maximum, W	2500	2500	2500		2500
3rd Order PIM, typical, dBc	-160	-160	-160	-160	-160
3rd Order PIM Test Method	2 x 20 W CW tones				

# Block Diagram





#### **Environmental Specifications**

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

**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 19.8 L

**Weight, net** 25.8 kg | 56.879 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

