Tower Mounted Amplifier, Dual DCS 1800 with AISG 2.0, with 4.3-10 connectors

- Industry leading PIM performance
- New 4.3-10 connectors for improved PIM performance and size reduction
- TMA is operating in AISG & CWA mode, Alarm Current consumption CWA mode 190 mA
- Designed to boost UP-Link Coverage and KPIs
- RET interface to control antenna RET actuators with AISG standard
- Single AISG with 1 RET connector
- Automatic LNA by-pass function
- Built in lightning protection
- 1 device with 2 sub-units
- Connectors “in line”
- 2 input ports and 2 output ports

Product Classification

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

General Specifications

Color
Gray

Modularity
2-Twin

Mounting
Pole | Wall

Mounting Pipe Hardware
Band clamps (2)

RF Connector Interface
4.3-10 Female

Dimensions

Height
225 mm | 8.858 in

Width
227 mm | 8.937 in

Depth
56 mm | 2.205 in

Ground Screw Diameter
8 mm | 0.315 in

Mounting Pipe Diameter Range
40–160 mm

Outline Drawing
Electrical Specifications

License Band, LNA
DCS 1800

Voltage
9 Vdc

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
110 mA @ 12 V

Operating Current Tolerance
±20 mA

Voltage
7–30 Vdc

Voltage, CWA Mode
10–18 Vdc

Alarm Current, CWA Mode
195 mA ±15 mA

Electrical Specifications, AISG
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 |
| Branch | 1 |
| Port Designation | ANT |
| License Band | DCS 1800, LNA |
| Return Loss - Bypass Mode, typical, dB | 14 |
| TX Band Rejection, minimum, dB | 75 |

Electrical Specifications Rx (Uplink)

| Frequency Range, MHz | 1710–1785 |
| Bandwidth, MHz | 75 |
| Gain, nominal, dB | 12 |
| Gain Tolerance, dB | ±1 |
| Noise Figure, maximum, dB | 1.8 |
| Noise Figure, typical, dB | 1.4 |
| Group Delay Variation, maximum, ns | 50 |
| Group Delay Variation Bandwidth, MHz | 5 |
| Total Group Delay, maximum, ns | 150 |
| Output IP3, minimum, dBm | 23 |
| Return Loss, minimum, dB | 18 |
| Insertion Loss - Bypass Mode, typical, dB | 3 |

Electrical Specifications Tx (Downlink)

| Frequency Range, MHz | 1805–1880 |
| Bandwidth, MHz | 75 |
| Insertion Loss, maximum, dB | 0.7 |
### E14R00P02

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Insertion Loss, typical, dB</td>
<td>0.4</td>
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<tr>
<td>Insertion Loss Ripple, maximum, dB</td>
<td>0.5</td>
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<tr>
<td>Group Delay Variation, maximum, ns</td>
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<tr>
<td>Group Delay Variation Bandwidth, MHz</td>
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<tr>
<td>Total Group Delay, maximum, ns</td>
<td>45</td>
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<tr>
<td>Return Loss, minimum, dB</td>
<td>18</td>
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<tr>
<td>RX Band Rejection, minimum, dB</td>
<td>45</td>
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<tr>
<td>Input Power, RMS, maximum, W</td>
<td>200</td>
</tr>
<tr>
<td>Input Power, PEP, maximum, W</td>
<td>5000</td>
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<tr>
<td>3rd Order PIM, typical, dBC</td>
<td>-163</td>
</tr>
<tr>
<td>3rd Order PIM Test Method</td>
<td>Two +43 dBm carriers</td>
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</tbody>
</table>
Material Specifications

**Finish**
Painted

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

**Included**
Mounting hardware
Volume 2.8 L
Weight, net 4.5 kg | 9.921 lb

Regulatory Compliance/Certifications

<table>
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<th>Agency</th>
<th>Classification</th>
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<tr>
<td>ISO 9001:2015</td>
<td>Designed, manufactured and/or distributed under this quality management system</td>
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</table>

* Footnotes

License Band, LNA License Bands that have RxUplink amplification