

# E14R00P02

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## 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

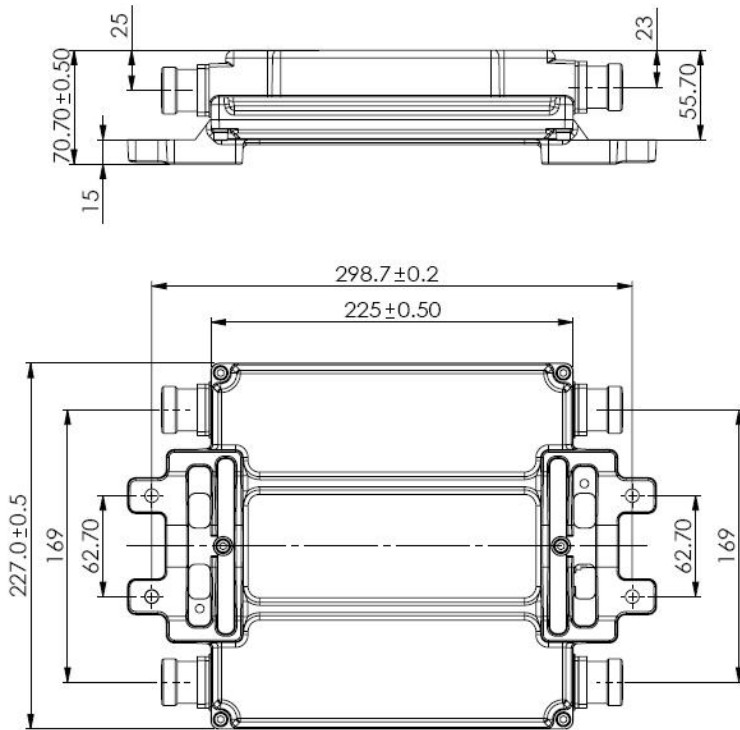
**Depth** 56 mm | 2.205 in

**Ground Screw Diameter** 8 mm | 0.315 in

**Mounting Pipe Diameter Range** 40–160 mm

## Outline Drawing

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## Electrical Specifications

<b>License Band, LNA</b>	DCS 1800
<b>Voltage</b>	9 Vdc

## Electrical Specifications, dc Power/Alarm

<b>dc Switching/Redundancy</b>	Yes
<b>Lightning Surge Current</b>	10 kA
<b>Lightning Surge Current Waveform</b>	8/20 waveform
<b>Operating Current at Voltage</b>	110 mA @ 12 V
<b>Operating Current Tolerance</b>	±20 mA
<b>Voltage</b>	7–30 Vdc
<b>Voltage, CWA Mode</b>	10–18 Vdc
<b>Alarm Current, CWA Mode</b>	195 mA ±15 mA

## Electrical Specifications, AISG

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<b>AISG Connector</b>	8-pin DIN Female
<b>AISG Connector Standard</b>	IEC 60130-9
<b>Protocol</b>	AISG 2.0
<b>Voltage, AISG Mode</b>	10–30 Vdc

## Electrical Specifications

<b>Sub-module</b>	<b>1   2</b>
<b>Branch</b>	1
<b>Port Designation</b>	ANT
<b>License Band</b>	DCS 1800, LNA
<b>Return Loss - Bypass Mode, typical, dB</b>	14
<b>TX Band Rejection, minimum, dB</b>	75

## Electrical Specifications Rx (Uplink)

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

## Electrical Specifications Tx (Downlink)

<b>Frequency Range, MHz</b>	<b>1805–1880</b>
<b>Bandwidth, MHz</b>	75
<b>Insertion Loss, maximum, dB</b>	0.7
<b>Insertion Loss, typical, dB</b>	0.4

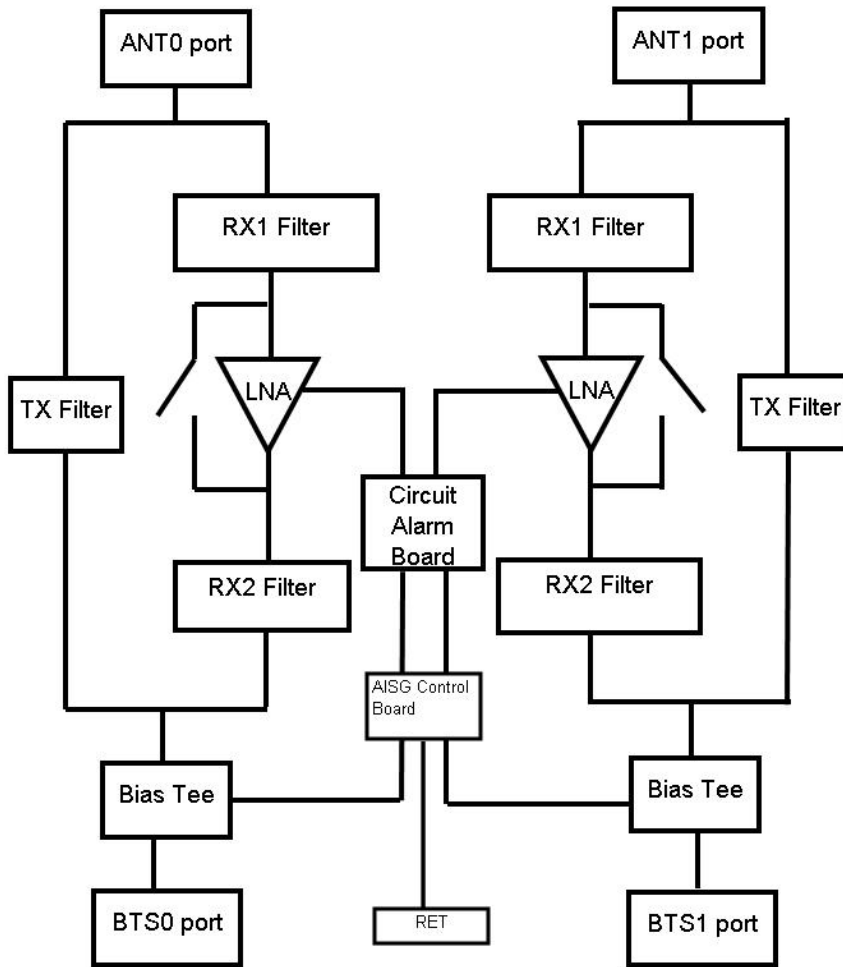
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<b>Insertion Loss Ripple, maximum, dB</b>	0.5
<b>Group Delay Variation, maximum, ns</b>	13
<b>Group Delay Variation Bandwidth, MHz</b>	5
<b>Total Group Delay, maximum, ns</b>	45
<b>Return Loss, minimum, dB</b>	18
<b>RX Band Rejection, minimum, dB</b>	45
<b>Input Power, RMS, maximum, W</b>	200
<b>Input Power, PEP, maximum, W</b>	5000
<b>3rd Order PIM, typical, dBc</b>	-163
<b>3rd Order PIM Test Method</b>	Two +43 dBm carriers

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## Block Diagram



## 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

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

## Regulatory Compliance/Certifications

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



### \* Footnotes

**License Band, LNA** License Bands that have RxUplink amplification