

# TMAT7UC8-11V | E15R02P57



Twin Compact TMA 700uC/850MHz, Duplexed BTS/ANT, Variable Gain and AISG

- Support DC/AISG antenna Auto-forward

## OBSOLETE

### Replaced By:

TMAT7L1921X-21A  
E15Z01P65

Twin TMA PCS/AWS/700 ABC

## 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 (4)

**RF Connector Interface** 7-16 DIN Female

**RF Connector Interface Body Style** Long neck

## Dimensions

**Height** 291 mm | 11.457 in

**Width** 251 mm | 9.882 in

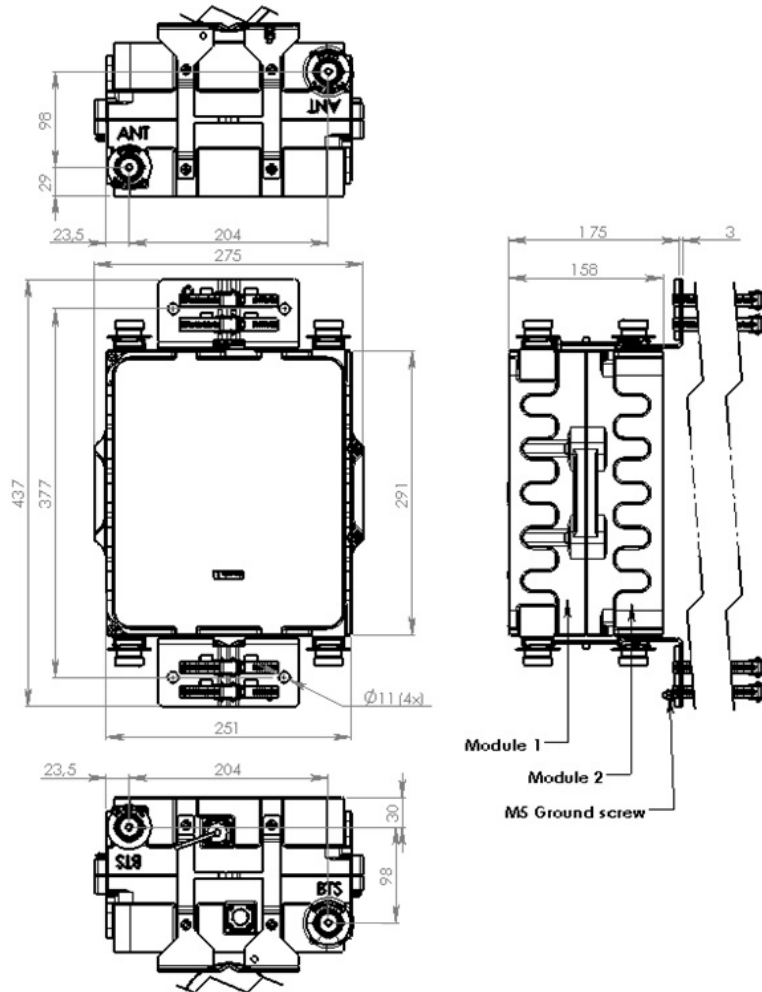
**Depth** 158 mm | 6.22 in

**Ground Screw Diameter** 6 mm | 0.236 in

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

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## Outline Drawing



## Electrical Specifications

**License Band, LNA**

CEL 850 | USA 750

## 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**

240 mA @ 12 V

**Operating Current Tolerance**

$\pm 20$  mA

**Voltage**

7-30 Vdc

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<b>Voltage, CWA Mode</b>	10–18 Vdc
<b>Alarm Current, CWA Mode</b>	30–170 mA @ 10–18 V

## Electrical Specifications, AISG

<b>AISG Carrier</b>	2.176 MHz ± 100 ppm
<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>1   2</b>
<b>Branch</b>	1	2
<b>Port Designation</b>	ANT	ANT
<b>AISG 2.0 Device Subunit</b>	E15R02P57 1/2	E15R02P57 1/2
<b>License Band</b>	USA 750, LNA	CEL 850, LNA
<b>Return Loss, typical, dB</b>	24	24
<b>Return Loss at 8 dB, typical, dB</b>	22	22
<b>Return Loss at 4 dB, typical, dB</b>	20	20
<b>Return Loss - Bypass Mode, typical, dB</b>	18	18

## Electrical Specifications Rx (Uplink)

<b>Frequency Range, MHz</b>	<b>777.5–787</b>	<b>824–849</b>
<b>Gain, nominal, dB</b>	13	13
<b>Gain Tolerance, dB</b>	±1.0	+1.3/-1.0
<b>Gain Adjustment Range, dB</b>	4-13	4-13
<b>Gain Adjustment Range Increments, dB</b>	1	1
<b>Noise Figure, typical, dB</b>	1.4	1.4
<b>Noise Figure at 8 dB, typical, dB</b>	1.7	1.7
<b>Noise Figure at 4 dB, typical, dB</b>	2.4	2.4
<b>Group Delay Variation, maximum, ns</b>	160	150
<b>Group Delay Variation Bandwidth, MHz</b>	5	5
<b>Insertion Loss - Bypass Mode, typical, dB</b>	2	2.2

## Electrical Specifications Tx (Downlink)

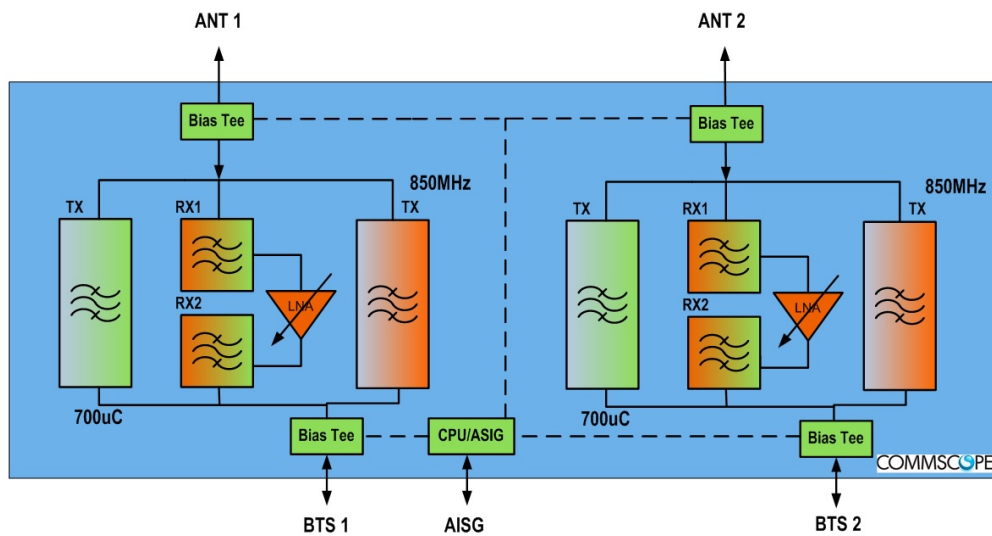
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<b>Frequency Range, MHz</b>	<b>746–756</b>	<b>869–894</b>
<b>Insertion Loss, typical, dB</b>	0.35	0.35
<b>Return Loss, typical, dB</b>	24	24
<b>Input Power, RMS, maximum, W</b>	200	200
<b>Input Power, PEP, maximum, W</b>	2000	2000
<b>3rd Order PIM, typical, dBc</b>		-161
<b>3rd Order PIM Test Method</b>		2 x 20 W CW tones
<b>7th Order PIM, minimum, dBc</b>	-161	

## Electrical Specifications, Band Reject

<b>Frequency Range, MHz</b>	<b>763–775</b>	<b>851–856</b>
<b>Attenuation, minimum, dB</b>	27	20

## 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

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## Packaging and Weights

<b>Included</b>	Mounting hardware
<b>Weight, net</b>	12.5 kg   27.558 lb

## Regulatory Compliance/Certifications

<b>Agency</b>	<b>Classification</b>
CHINA-ROHS	Above maximum concentration value
ROHS	Compliant/Exempted
UK-ROHS	Compliant/Exempted



## \* Footnotes

<b>License Band, LNA</b>	License Bands that have RxUplink amplification
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