

## Features

- 700/800 MHz band
- USA manufacture and applications support
- Single Part Number kits for ordering complete systems
- Low noise figure across standard operating gain levels
- Tower Top Unit:
  - Lightweight: < 8 lbs.
  - Amplifier redundancy
  - Non-diversity or diversity variants
  - N Type or 4.3-10 Connector options
  - High rejection pre-selector filter prior to TTA to eliminate TX intermodulation blocking issues
- Control and Multicoupler Unit:
  - Intuitive graphic user interface
  - -48 VDC Isolated Power Supply with optional AC mains (sold separately)
  - Field upgrade options to grow existing systems from 8 to 16 channels and 16 to 48 channels

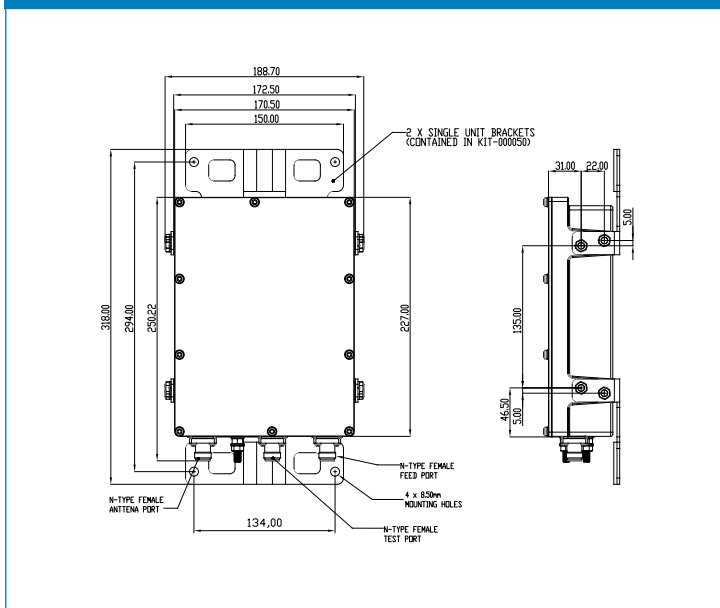
Tower Top Amplifier System Specification	8-32 Channels	48 Channels
System Gain [dB] Min. / (Typical)	23.0 / (23.7)	19.0 / (19.7)
System Noise Figure [dB] Max. / (Typical)	≤ 2.8 / (2.5)	
Frequency Band(s) [MHz]	700/800	
System Passband [MHz]	794 - 824	
System Gain Flatness [dB] Max. / (Typ.)	≤ 1.5 / (0.5)	
System IIP3 3rd Order Intercept Point [dBm] / (Typ.)	>13.4/(13.9) @ 15dB gain setting	>13.4/(13.9) @ 10dB gain setting
Adjustable Attenuation Range [dB]	≥ 15 to 0	
Adjustable Attenuation Step Size [dB]	≤ 0.5	
Redundant Power Supply	Optional – see table for ordering options	
Testport Function	Included	
Testport Flatness [dB]	< 2.0	
Preselector	Included	
System TX Band Rejection [dB]	≥ 110	
Internal Termination Test Mode	Included	
Antenna Test Mode	Included	
Bypass (Failure) Mode	Included	
Bypass Mode System Loss [dB]	< 22	
Internal Storage of Test Data	Included	
Auto RX Overall Gain Setup	Included	
High Level Carrier Monitor	Included	

### Data Sheet

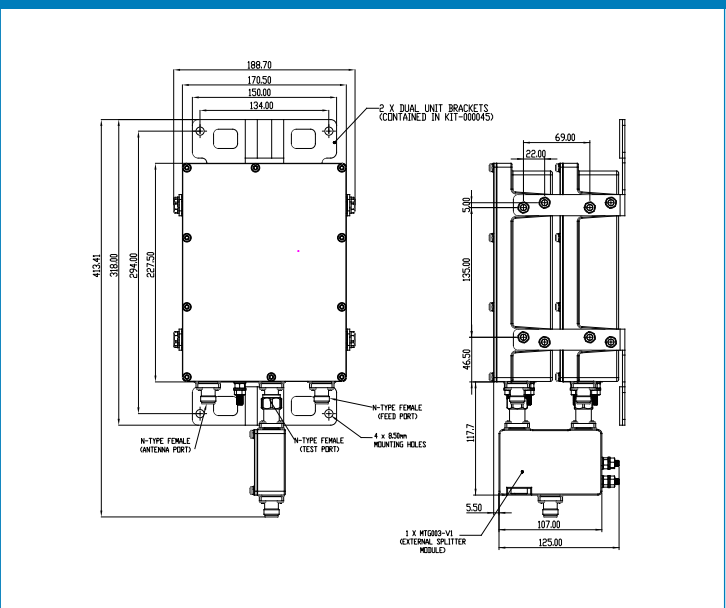
#### Tower Top Unit Specification

TTA Gain [dB] Min. / (Typ.)	27.0 / (27.5)
TTA Noise Figure [dB] Max. / (Typ.)	2.8 / (2.5)
TTA IIP3 [dBm] Min. / (Typ.)	17.0 / (18.0)
Type of Amplifier	Quadrature Coupled - Redundant [two (2) independent quadrature amplifiers]
Amplifier Switching	Automatic upon failure detection
Type of Amplifier/Test Mode Switching	Solid State RF Switch
Return Loss on All RF Ports [dB]	> 14
Power Requirements	Control unit: -48 VDC, 0.21A typ. (10W) DC Power supplied from Control Unit to TTA via Feed cable
Operating Temp. Range (Full Specs) [°C]	-30 to +60
Operating Temp. Range (Degraded Specs) [°C]	-40 to +70
Lightning Protection	20kA IEC 61000-4-5 8/20 uS multiple strike and 3 kA 10/350 uS slow pulse waveform
Grounding Studs	2 ¼", M6, studs for 2 hole lugs with ¾" center to center spacing
Test Port Coupling (Test in to Antenna in) [dB]	30 ± 2
Test Port Balance (Dual Branch) [dB]	< ±0.25
Branch to Branch Isolation (Dual Branch) [dB]	< -60
Connector Type (All Ports)	N or 4.3-10 female – see table for ordering options
Enclosure	IP 67
Size Maximum (H x W x D) [in]	9 x 6.8 x 2.4 excluding brackets (single branch unit)
Weight Maximum [lbs]	8 (Single branch unit)
TTA Unit Test Record	Stored electronically in unit

#### Single Tower Top Unit Outline Drawing



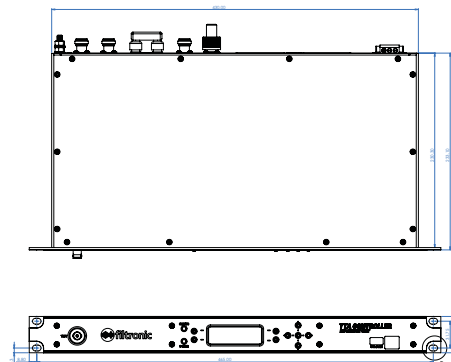
#### Dual Tower Top Unit Outline Drawing



### Data Sheet

Control & Multicoupler Unit (CMU) Specification	8-32 Channels	48 Channels
CMU Gain [dB] Min. / (Typ.)	Control Unit = -5.0 / (-4.8)      Multicoupler Unit = 1.0 / (1.0)	Control Unit = -5.0 / (-4.8)      Distribution Unit = -3.5 / (-3.5)
CMU Noise Figure [dB] Max. / (Typ.)	Control Unit = 5.0 / (4.8)      Multicoupler Unit = 2.5 / (2.2)	Control Unit = 5.0 / (4.8)      Distribution Unit = 5 / (4.5)
CMU IIP3 [dB] Min. / (Typ.)	Control Unit = > 60 / (>60.0)      Multicoupler Unit = 29.9 / (30.2)	Control Unit = >60 / (>60)      Distribution Unit = 29.9 / (30.2)
Type of Amplifier	Quadrature Amplifier	
RF Port Return Loss [dB]	≥ 14	
Adjustable Attenuator Type	Electronic	
TTA Connectors Type (Rear Facing)	N-Female	
Number of Rx Output Ports	8,16, 32 or 48 dependent on model (see table for ordering options)	
Rx Output Connectors Type (Rear Facing)	BNC-Female	
Rx to Rx Port Isolation [dB]	≥ 20	
External Filter Ports - Type	Included - BNC	
Testport Input Connector Type (Front Facing)	BNC-Female	
ESD Protection	IEC61000-4-2 Level 3	
Grounding Studs	2 ¼", M6 studs for 2 hole lugs with ¾" center to center spacing	
Status Indicators	Included	
Alarm Contacts	Form-C Contacts	
Ethernet Port	Included allows SNMP (Configuration and control from internal web page)	
Power Requirements	100 - 240 VAC 50/60 Hz OR -48 VDC – See table for ordering options	
Operating Temperature Range (Full Specs) [°C]	0 to +50	
Enclosure	Standard EIA 19" Rack Mount	
Size Maximum (H x W x D) [in]	1.75 (1 RU) x 19 x 9.25 (single branch unit 8 or 16 output unit) 2 x 1.75 (1 RU) x 19 x 9.25 (Dual branch unit 8 or 16 output unit) 2 x 1.75 (1 RU) x 19 x 9.25 (Single branch unit 32 output unit) 4 x 1.75 (1 RU) x 19 x 9.25 (Dual branch unit 32 output unit)	3 x 1.75 (1 RU) x 19 x 9.25 (Single Branch Unit 48 way output) 6 x 1.75 (1 RU) x 19 x 9.25 (Dual Branch Unit 48 way output)
Control and Multicoupler Unit Test Record	Stored electronically in unit	

### Single Control and Multicoupler Unit Outline



## Ordering Guide



	Non-Diversity [Single Branch] TTA System Part Numbers			
	N-Type Connectors on TTA		4.3-10 Connectors on TTA	
	Control & Multicoupler Unit Dual -48VDC Input	Control & Multicoupler Unit Single -48VDC Input	Control & Multicoupler Unit Dual -48VDC Input	Control & Multicoupler Unit Single -48VDC Input
<b>8 Output</b>	SGG025-P (2)	SGG026-P (1)	SGG033-P (2)	SGG034-P (1)
<b>16 Output</b>	SGG045-P (2)	SGG046-P (1)	SGG053-P (2)	SGG054-P (1)
<b>32 Output</b>	SGG065-P (4)	SGG066-P (2)	SGG073-P (4)	SGG074-P (2)
<b>48 Output</b>	SGG077-P (6)	SGG078-P (3)	SGG081-P (6)	SGG082-P (3)

AC/DC power supplies (PSU-000001-P) are sold separately. If required, please order (n) quantity as indicated in the table above.



	Diversity [Dual Branch] TTA System Part Numbers			
	N-Type Connectors on TTA		4.3-10 Connectors on TTA	
	Control & Multicoupler Unit Dual -48VDC Input	Control & Multicoupler Unit Single -48VDC Input	Control & Multicoupler Unit Dual -48VDC Input	Control & Multicoupler Unit Single -48VDC Input
<b>8 Output</b>	SGG027-P (4)	SGG028-P (2)	SGG035-P (4)	SGG036-P (2)
<b>16 Output</b>	SGG047-P (4)	SGG048-P (2)	SGG055-P (4)	SGG056-P (2)
<b>32 Output</b>	SGG067-P (8)	SGG068-P (4)	SGG075-P (8)	SGG076-P (4)
<b>48 Output</b>	SGG079-P (12)	SGG080-P (6)	SGG083-P (12)	SGG084-P (6)

AC/DC power supplies (PSU-000001-P) are sold separately. If required, please order (n) quantity as indicated in the table above.

## Accessory Ordering Guide

Description	Part Number
POWER SUPPLY ADAPTER, 110V AC TO -48V DC, SINGLE OUTPUT	PSU-000001-P
SHELF, 1U, HOLDS UP TO (4) DSPSU000001P POWER SUPPLY ADAPTERS	MGG002-V1-P
EXPANSION KIT, 16 WAY TO 32 WAY, PASSIVE, EXTERNAL	MTG004-P
EXPANSION KIT, 8 WAY TO 16 WAY, PASSIVE, INTERNAL, FOR SEG002-F*-V8	MTG005-P
EXPANSION KIT, 32 WAY TO 48 WAY, PASSIVE, EXTERNAL, FOR SEG003-F*-V16	MTG006-P
TERMINATOR, 50 OHM, BNC	CON-000460-P
SURGE PROTECTOR, LIGHTNING, N-F TO N-F, DC PASS THRU	MVG002-V1-P
EXTERNAL PRE-SELECTOR BANDPASS FILTER 700/800MHZ **	Only use when addt'l filtering is req'd
	**PASS BANDWIDTH = 3 MHZ
	PPC028-V3-P
	**PASS BANDWIDTH = 6 MHZ
	PPC028-V6-P
	**PASS BANDWIDTH = 10 MHZ
	PPC028-V10-P
	**PASS BANDWIDTH = 15 MHZ
	PPC028-V15-P
	**PASS BANDWIDTH = 18 MHZ
	PPC028-V18-P

## Replacement Parts

Description	Part Number
TOWER TOP AMPLIFIER, 700/800MHZ REDUNDANT AMP, N-CONNECTORS	SAC001-V1-P
TOWER TOP AMPLIFIER, 700/800MHZ REDUNDANT AMP, 4.3-10 CONNECTORS	SAC001-V2-P
TTA CONTROL & DISTRIBUTION UNIT, 8 WAY, W/O REDUNDANT PS, 1U, 19"	SEG002-F1-V8-P
TTA CONTROL & DISTRIBUTION UNIT, 8 WAY, W REDUNDANT PS, 1U, 19"	SEG002-F2-V8-P
TTA CONTROL & DISTRIBUTION UNIT, 16 WAY, W/O REDUNDANT PS, 1U, 19"	SEG002-F1-V16-P
TTA CONTROL & DISTRIBUTION UNIT, 16 WAY, W REDUNDANT PS, 1U, 19"	SEG002-F2-V16-P
TTA CONTROL & DISTRIBUTION UNIT, 16 WAY, W/O REDUNDANT PS, 1U, 19", 48 WAY	SEG003-F1-V16-P
TTA CONTROL & DISTRIBUTION UNIT, 16 WAY, W REDUNDANT PS, 1U, 19", 48 WAY	SEG003-F2-V16-P
MOUNTING KIT, TTA, SINGLE UNIT	KIT-000044-P
MOUNTING KIT, TTA, DUAL, N-TYPE CONNCTR, W/TEST PORT POWER SPLITTER	KIT-000045-V1-P
MOUNTING KIT, TTA, DUAL, 4.3-10 CONNCTR, W/TEST PORT POWER SPLITTER	KIT-000045-V2-P

### Contact Us

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