Tower Top Amplifier System (793-824 MHz)

DS7TMA31 and DS7TMA31-S Tower Top Amplifier
Use with DS7PDU Multicoupler/PDU

ELECTRICAL SPECIFICATIONS	
Frequency Range, MHz	793-824
TTA Gain (typ), dB	24
TTA System Noise Figure (typ), dB	3
Return Loss (typ), dB	14
Test Port Coupling (typ), dB	30
Power Supply Input (nominal)	18 and 24 VDC
Operating Current (typ)	600 mA
Surge Suppression	18 KA ANSI C62.1, 8/20 waveform, 110 joules
LNA SPECIFICATIONS	
Type	Quadrature Coupled Redundant Amps (A & B)
Dual Redundancy	Two independent amps with automatic backup amplifier switching
Amplifier Bypass	Automatic or manual bypass of amps in case of amp alarms or power failure
LNA Gain, dB	30
LNA Noise Figure, dB	0.8
LNA Output IP3, dBm	40
FILTER SPECIFICATIONS	
Filter Bandwidth, MHz	31
Filter Isolation, dB	> 120 @ 851-869 and 763-776 MHz
MECHANICAL SPECIFICATIONS	
Construction	**DS7TMA31**: Aluminum **DS7TMA31-S**: SS304 Stainless Steel, 11 gauge with 0.120" thickness
Environmental Steeling/ Finish	NEMA 4/4X, UV protected, powder coat white
RX Antenna Connector	N-Female
RX Output Connector	N-Female
Test Port Input Connector	N-Female
Temperature Range, degrees	-30 to +60 C
Mounting Hardware	DB380 clamps for up to 3.5" OD pipe
DIMENSIONS	
Width, in(mm)	9 (228.6)
Height, in(mm)	21.25 (539.75)
Depth, in(mm)	13.25 (336.55)
Weight, lb(kg)	45 (20.5) mounting hardware included

FEATURES AND BENEFITS

- Dual redundant quadrature coupled LNAs.
- Automatic bypass of LNA in event of LNA alarm condition or loss of power.
- Provides more than 120 dB of isolation at the 700 and 800 MHz TX carrier bands. Prevents high level carriers from entering the receive system to ensure optimum receive sensitivity performance.
- Heavy duty weatherproof NEMA 4X aluminum enclosure. SS304, 11 gauge stainless steel option available.
- Test port standard for accurate RX sensitivity testing.

ORDERING INFORMATION

DS7TMA31	standard aluminum enclosure, all N female connectors.
DS7TMD31	standard aluminum enclosure, all DIN female connectors.
DS7TMA31-S	optional stainless steel enclosure, all N female connectors.
DS7TMD31-S	optional stainless steel enclosure, all DIN female connectors.

DS7PDU (793-960 MHz)

Receiver Multicoupler/Power Distribution Unit

Use with DS7TMA31 and DS7TMA31-S (See TTA Section)

ELECTRICAL SPECIFICATIONS	
Frequency Range, MHz	793-960
Number of Channels	8 (expandable to 32)
Input/Output Return Loss, dB	14
Isolation (RX to RX) (min), dB	20
Input Power	± 18-75 VDC
PDU SPECIFICATIONS	
PDU Noise Figure, dB	4 (0 input attenuation)
PDU Net Gain (typical), dB	14 (0 input attenuation)
LNA SPECIFICATIONS	
LNA Noise Figure (typical), dB	0.8
LNA Gain (typ), dB	30
LNA Output IP3 (typ), dBm	40

MECHANICAL SPECIFICATIONS		
Input Connector	N-Female	
Output Connector	BNC-Female	
Expansion Ports	BNC-Female	
Test Ports	In: BNC-Female Out: N-Female	
Alarm Port	DB-9 Female	
Ethernet Port	RJ45 Female	
DC Power Input	Plug-in terminal block, 2 contact	
Mounting	EIA 19-inch Rack	
Temperature Range, degrees	-30 to +60 C	
DIMENSIONS	**8 Channel**	**16, 24 or 32 Channel**
Width, in(mm)	19 (482.6)	19 (482.6)
Height, in(mm)	1.75 (44.5)	3.5 (88.9)
Height, RU	1	2
Depth, in(mm)	10 (254)	10 (254)
Weight, lb(kg)	6 (2.72)	12 (5.48)
Shipping Weight, lb(kg)	16 (7.25)	32 (14.5)

FEATURES AND BENEFITS

- Integrated compact design:
  8 channels - one rack unit
  32 channels - two rack units
  (expansion chassis required)
- Automatic bypass of bottom amp with alarm/ power loss.
- Test injection port - for receive sensitivity testing, selectable with or without receive antenna terminated.
- Front panel color LCD display - allows for local configuration and monitoring.
- Monitor status of top and bottom LNAs with front panel LEDs and dry contact interfaces.
- IP network access via web browser or Telnet - control attenuator setting, test port functions and more.
- Microcomputer monitors top and bottom LNA current and voltage. Dry contact, front panel or SNMP alarm notification.
- USB Interface for local PC Connection.
- Electronic adjustable attenuators: both pre and post LNA adjustable from 0 to 15 dB (0.5 dB increments).
- Additional selectivity with optional filters (3, 6, or 10 MHz passbands) installed in one rack unit chassis.

ORDERING INFORMATION

Power Options
A 90-264 VAC @50/60Hz
D ±18-75 VDC

Secondary Filter Options
1 806-816 MHz
2 806-809 MHz
3 799-805 MHz

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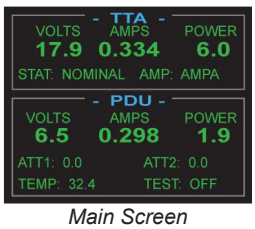
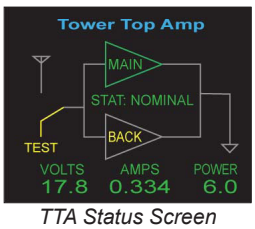
Number of Channels
08 8 Channels
32 32 Channels

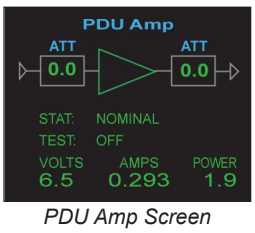
NOTE: For Remote Splitter Applications, order DS7PDU-8RSA - Remote Splitter Chassis (1 RU).



Main Screen



TTA Status Screen



PDU Amp Screen