

HUGHES 8000H SERIES

Instrumentation TWT Amplifiers

1.0– 50.0 GHz, 1-70 Watts

FEATURES:

- 30 Models 1-50 GHz, 1-70 Watts
- Lightweight and compact
- High reliability
- IEEE-488 Data-Bus Interface and other options available
- Low Spurious Modulation
- Automatic Recycle

The Hughes 8000H Series Instrumentation Traveling-Wave Tube Amplifiers are specifically designed for general purpose system and component testing and laboratory experimentation and measurement.

The 8000H Series offers power levels of 10, 20 and 30 Watts in the 1 to 18 GHz range, along with 1 and 10 watt levels between 18.0 and 50.0 GHz. High power narrow band models in the 30, 35 and 45 GHz ranges are also available.

Automatic Recycle

This feature automatically recycles the TWTA from ready to “RF on” in the event of a momentary fault condition such as a power outage of less than 3 seconds, low line voltage, overtemperature, or helix current overload. In the event of two consecutive helix current overload faults, the TWTA will revert to the off mode and require manual reset.

TWTA Power Output (Watts/Min.)	Frequency (GHz)	Gain at Rated Power (Db/Min.)	TWTA Model (Number)	RF Connector Type (Input/Output)
10	STANDARD BANDS			
	1.0 to 2.0	30	8010H09	N
	2.0 to 4.0	30	8010H01	N
	4.0 to 8.0	30	8010H02	N
	8.0 TO 12.4	30	8010H03	N
	12.4 to 18.0	30	8010H04	N
	MULTIBANDS			
	3.0 TO 8.0	30	8010H13	N
	3.9 TO 11.7	30	8010H16	N
	4.0 TO 10.5	30	8010H06	N
	6.5 TO 13.5	30	8010H07	N
	7.0 TO 16.3	30	8010H17	N
	8.0 TO 18	30	8010H15	N
20	STANDARD BANDS			
	1.0 TO 2.0	30	8020H09	N
	2.0 TO 4.0	30	8020H01	N
	4.0 TO 8.0	30	8020H02	N
	8.0 TO 12.4	30	8020H03	N
	12.4 TO 18	30	8020H04	N
	MULTIBANDS			
	1.4 to 2.4	30	8020H10	N
	8.0 to 18	30	8020H15	N
18 to 40 GHz MODELS				
1	10.0 to 26.5	30	8001H11	UG596 (WR42)
	26.5 to 40	30	8001H12	UG600 (WR28)

SPECIFICATIONS:

RF Performance

Frequency	See table above
Power Output	See table above
Gain at rated power output	See table above
Duty	CW
Noise Figure	35 dB typical
Spurious Modulation	-35 dB (min.)
Load VSWR	3.0:1 (max)
RF Impedance	50 oHMS

Electrical

Input Voltage	120 VAC \pm 10%, 50/60 Hz
Power Consumption (typical)	350W Max.

Mechanical

Size/configuration	16.75" wide x 3.5" high x15.5" deep (typ.)
Weight	20 Lbs (typ.)
RF connector type	Type N female

Environmental

Temperature (operating)	0 to +50C
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