PT-KW Series Pulse TWT Microwave Power Amplifiers 1.0 – 18 GHz • 2,000 – 4,000 watts, Minimum Rated Power

The PT series of KW Pulse amplifiers built by IFI; are high power, "State-of-the-art" Pulse TWT amplifiers specifically designed for microwave testing applications. Our elegant approach provides 2000-4000 Watts of pulse power for various frequency ranges from 1.0 to18.0 Gigahertz in various packages that offers all the controls and communications needed for today's automated test systems. These amplifiers have field proven reliability and unsurpassed performance as the best in the industry.

From the ground up the PT series amps are built to withstand rugged handling, whether it's being shipped to you or hauled around from site to site. Our amplifiers feature modular construction and this concept of modular design minimizes internally produced EMI signal leakage and provides easy access for field service and rapid turnaround at depot level repair facilities. Redundant thermal and airflow sensors prevent the TWT from overheating. In addition, high VSWR protection is built in.

The PT series "State-of-the-art" interface is sophisticated yet simple to use. The backlit LCD screen shows forward/reverse power indication, status and self-diagnostic information. All the amplifiers operating parameters are simultaneously available in the amplifier front panel display as well as over the remote bus. Selection switches allow you to switch the amplifier to the desired mode of operation for local control if the unit is not being operated remotely. For computer automation, both an RS-232 and IEEE-488 interface are included. To meet individual requirements, the PT series amplifiers can be easily customized with our available options that may be required for your application.

With all this capability and its reliable elegant design, the PT series amplifiers are the perfect amplifier for your testing needs.

IFI Pulse TWT Amplifier Features:

- ∞ Solid State Power Supply Designs
- ∞ Instantaneous Broadband Frequency ranges
- ∞ Modular Design Construction
- ∞ Rugged construction & High Reliability
- ∞ Backlit LCD Display
- ∞ Integrated Force Air Cooling
- ∞ Self-diagnostic circuitry
- ∞ IEEE-488 interface, RS232





Nodels & General Specifications:							
Model Number	Frequency Range (GHz)	Rated Power (kW minimum)	Gain (dB min)	Mains (kVA)	Weight (pounds)	Size (Inches)	
PT21-3KW	1-2	3.0	65	1.5	120	14.0"Hx19"Wx25.25D	
PT251-3KW	1-2.5	3.0	65	1.5	120	14.0"Hx19"Wx25.25D	
PT42-3KW	2-4	3.0	65	1.5	85	14.0"Hx19"Wx25.25D	
PT64-3KW	4-6	3.0	65	1.5	85	14.0"Hx19"Wx25.25D	
PT84-3KW	4-8	3.0	65	1.5	85	14.0"Hx19"Wx25.25D	
PT128-3KW	8-12	3.0	65	1.5	85	14.0"Hx19"Wx25.25D	
PT1812-3KW	12-18	3.0	65	1.5	85	14.0"Hx19"Wx25.25D	
PT188-2KW*	8-18	2.0	65	1.5	75	10.5"Hx19"Wx25.25D	
PT188-3KW	8-18	3.0	65	1.5	85	14.0"Hx19"Wx25.25D	
PT186-2KW*	6.5-18	2.0	65	1.5	75	10.5"Hx19"Wx25.25D	
PT186-3KW	6.5-18	3.0	65	1.5	85	14.0"Hx19"Wx25.25D	
PT21-4KW	1-2	4.0	66	1.5	85	14.0"Hx19"Wx25.25D	
PT42-4KW	2-4	4.0	66	1.5	85	14.0"Hx19"Wx25.25D	
PT64-4KW	4-6	4.0	66	1.5	85	14.0"Hx19"Wx25.25D	
PT84-4KW	4-8	4.0	66	1.5	85	14.0"Hx19"Wx25.25D	
PT128-4KW	8-12	4.0	66	1.5	85	14.0"Hx19"Wx25.25D	
PT1812-3.5KW	12-18	3.5	66	1.5	85	14.0"Hx19"Wx25.25D	

*Over the majority of the band

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AMPLIFIERS

PT-KW Series Pulse TWT Microwave Power Amplifiers

1.0 – 18 GHz • 2,000 – 4,000 watts, Minimum Rated Power

		1.0 – 10 GHZ * 2,000 – 4,000 watts, Minimum Kateu rower				
		PT-Series Pulse TWT Amplifiers				
		Reflected Power Protection, the unit operates without damage or oscillation into any magnitude of phase or load impedance, & Short Circuit Protection.				
reatures		nate Prime Power (specify at time of order)				
		B IEEE 488 & RS232 Remote Control				
		Sample Port on the Front Panel, 112R for rear panel				
		ternal Pre-amplification to obtain rated output power with an input level of 0 dBm or less.				
	RF Input/Output Connectors on the Front Panel, 118R for rear panel					
	Internal System:	nternal Systems Diagnostics & Status Indicators				
	Filament/Beam	ament/Beam Elapsed Time Metering in hours				
	F Safety Interlock					
	Forward/Reflected Power Indication simultaneously on Front Panel display					
PT- Series Spe						
Frequency Range		As Specified in Model Table				
Rated Output Por		As Specified in Model Table				
Gain @ Rated Po	ower:	As Specified in Model Table				
Prime Power: Input/output Impedance:		As Required for Customer (Some are listed below)				
		50 ohms Turne N. Farmela, unless specified attenuise				
RF Input/ Sample Connectors:		Type N Female, unless specified otherwise Type SC or 716 Female up to 8 GHz,				
		1 ype SC or 716 Female up to 8 GHz, 8-12 GHz is WR90, 12-18 GHz is WR62, 7.5-18 GHz is WRD750, 6.5-18 GHz is WRD650				
RF Output Conn	ector:	Other waveguides available by request or specification (see Option 117)				
Input VSWR/Output VSWR:		2.0:1/2.5:1				
Pulse Input:		BNC Female Front Panel {TTL into 500hms standard}consult factory for special requirements				
Pulse Width Ran	ige:	100nsec - 100usec				
PRF Range:		Up to 100 KHz Standard, Higher PRF ranges available consult factory				
Duty Cycle:		6% Standard, Lower & Higher PRF ranges subject to TWT spec.				
Rise & Fall Time:		15 ns nominal; 20 ns maximum				
Pulse to Pulse Jitter:		+/- 5 nsec maximum				
Pulse Width Jitter:(Distortion)		+/- 5 nsec maximum				
Pulse Recovery	Time:	150 nsec maximum				
Pulse Delay:		250 nsec maximum / 180 nsec typical				
Pulse Droop:		0.5 dB/100usecs, 0.1dB/10usec				
Power Output Stability:		0.2dB Pulse to Pulse at constant drive level & PRF				
Pulse On/Off Rat		80 dB				
Phase Stability P	Pulse to Pulse:	+/-1 degree nominal				
Temperature:		0° to 50° C operating, -40° to 70° C non-operating				
Humidity:		95% without condensation 10,000 feet operating, 50,000 non-operating				
Altitude:		Air cooled, self-contained				
Cooling System: Modulation:		All types, AM, FM, Pulse				
		Rack Mount as specified in Model Table				
Spurious Outputs:		<-60 dBc nominal				
Standard Prin						
	AC ±10% 50/60 H					
		50 Hz, single phase				
		$230/240$ VAC $\pm 10\%$ 50/60 Hz, three phase Wye or Delta and/or 400 Hz power is available.				
Special Prime Po	wers other then lis	sted are subject to availability				
Some Availabl	le Options for I	FI PT- Series TWT Amplifiers				
Option 103 G/D: VSWR Reflected Power Protection "Graceful Degradation Feature" which will automatically reduce the input drive and fold back the option 103 G/D:						
1	power when the average reflected power exceeds a preset limit of 3.0:1.					
	The unit of	he unit operates without damage or oscillation into any magnitude of phase or load impedance.				
Option 110-1E:		B IEEE-488 RS232 and Ethernet Remote Control				
Option 110-2:		GPIB IEEE-488 and RS 422 Remote Control				
Option 110-3		GPIB IEEE-488 and RS 485 Remote Control				
Option 113:		Chassis Slides for 19" Rack Mounting				
Option 118F or		Front Panel RF Connections 118R for Rear Panel RF Connections				
Option 123F or	K: Reflected	RF Sample Port -40, -50 or -60dB N or SMA, Front or Rear Panel				

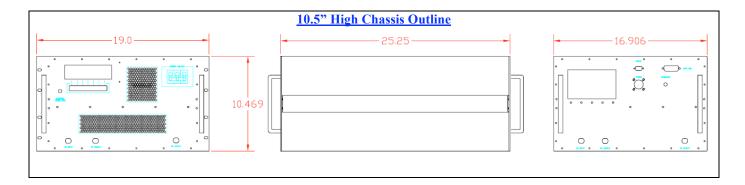
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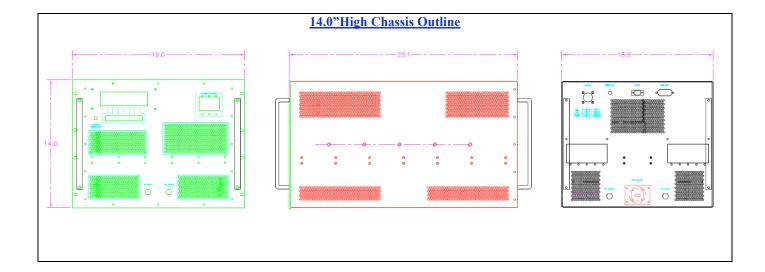
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Outline Configurations:





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