### PT-1KW Series Pulse TWT Microwave Power Amplifiers 1.0 – 18 GHz • 1,000 – 2,000 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 1,000-2,000 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 also offers different size packages to best suit your application. We have standard 10.5" high models for most commercial systems, but we also offer an 8.75" high version for space limited applications.

#### **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
- $\infty$  Self-diagnostic circuitry
- ∞ IEEE-488 interface, RS232





Models & General Specifications:								
Model Number	Frequency Range (GHz)			Weight (pounds)	Size (Inches)			
PT21-1KW	1.0-2.0	1.0	60	1.5	85	10.5"Hx19"Wx25.25D		
PT21-2KW	1.0-2.0	2.0	63	1.5	85	10.5"Hx19"Wx25.25D		
PT251-1KW	1.0-2.5	1.0	60	1.5	75	10.5"Hx19"Wx25.25D		
PT251-2KW	1.0-2.5	2.0	63	1.5	75	75 10.5"Hx19"Wx25.25D		
PT42-1KW	2.0-4.0	1.0	60	1.5	75	10.5"Hx19"Wx25.25D		
PT42-2KW	2.0-4.0	2.0	63	1.5	75	10.5"Hx19"Wx25.25D		
PT82-1KW	2.0-8.0	1.0	60	1.5	75	10.5"Hx19"Wx25.25D		
PT82-2KW	2.0-8.0	2.0	63	1.5	75	10.5"Hx19"Wx25.25D		
PT825-1KW	2.5-8.0	1.0	60	1.5	75	10.5"Hx19"Wx25.25D		
PT825-2KW	2.5-8.0	2.0	63	1.5	75	10.5"Hx19"Wx25.25D		
PT84-1KW	4.0-8.0	1.0	60	1.5	75	10.5"Hx19"Wx25.25D		
PT84-2KW	4.0-8.0	2.0	63	1.5	75	10.5"Hx19"Wx25.25D		
PT128-1KW	8.0-12.0	1.0	60	1.5	75	10.5"Hx19"Wx25.25D		
PT128-2KW*	8.0-12.0	2.0	63	1.5	75	10.5"Hx19"Wx25.25D		
PT1812-1KW	12.0-18.0	1.0	60	1.5	75	10.5"Hx19"Wx25.25D		
PT1812-2KW*	12.0-18.0 2.0 63 1.5		1.5	75	10.5"Hx19"Wx25.25D			
PT188-1KW	8.0-18.0	8.0-18.0 1.0 60 1.5 75		75	10.5"Hx19"Wx25.25D			
PT188-2KW*	8.0-18.0	2.0	2.0 63 1.5 75		75	10.5"Hx19"Wx25.25D		
PT186-1KW	6.5-18.0	1.0	60	1.5	75 10.5"Hx19"Wx25.2			
PT186-2KW*	6.5-18.0	2.0	63	1.5	75	10.5"Hx19"Wx25.25D		

\* Over the majority of the band

#### Instruments For Industry

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The Power Of Choice

# **PT-1KW Series Pulse TWT Microwave Power Amplifiers**

### 1.0 – 18 GHz • 1,000 – 2,000 watts, Minimum Rated Power

Standard Features for IFI PT-Series Puble TWT Amplifiers Standard Features for IFI PT-Series Puble TWT Amplifiers Standard Standard Features (VSWR Reflected Power Protection, the unit operates without damage or oscillation into any magnitude of phase or load impedance, Open & Short Circuit Protection. Ref Jennes Print Power (specify at time of order) (FPI HiEFE 488 & RS323 Remote Control Ref Sample Pott on the Front Panel, 1128 for rear panel Internal Systems Diagnostics & Status Indicators Internal Process Internal Prove			.0 – 18 GHZ • 1,000 – 2,000 watts, Minimum Rateu Power				
Features         Open & Short Circuit Protection.           CPUB LEE 488 & R5323 Remote Control.           RF sample Port on the Front Panel, 112R for rear panel           Internal 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 Systems Disponsities & Status Indicators           Filament/Beam Elapsed Time Metering in hours           FT-Series Specifications:           Frequency Range:         As Specified in Model Table           Rated Upput Power         As Specified in Model Table           Rated Upput Sample Connector:         Type N Fernale put 8 GHz, 18 GHz is WR0750, 6.5-18 GHz is WR0500           RF Input Sample Connector:         Type N Fernale put 8 GHz is WR0750, 6.5-18 GHz is WR0500           RF Mange:         Upp to NC Frank Front Panel [TTL into Solhne standard.consult factory           Date Type Cor or 16 Into manetapt 8 GHz is WR0750, 6.5-18 GHz is WR0500 <t< th=""><th></th><th></th><th></th></t<>							
Features         Open & Short Circuit Protection.           CPUB LEE 488 & R5323 Remote Control.           RF sample Port on the Front Panel, 112R for rear panel           Internal 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 Systems Disponsities & Status Indicators           Filament/Beam Elapsed Time Metering in hours           FT-Series Specifications:           Frequency Range:         As Specified in Model Table           Rated Upput Power         As Specified in Model Table           Rated Upput Sample Connector:         Type N Fernale put 8 GHz, 18 GHz is WR0750, 6.5-18 GHz is WR0500           RF Input Sample Connector:         Type N Fernale put 8 GHz is WR0750, 6.5-18 GHz is WR0500           RF Mange:         Upp to NC Frank Front Panel [TTL into Solhne standard.consult factory           Date Type Cor or 16 Into manetapt 8 GHz is WR0750, 6.5-18 GHz is WR0500 <t< th=""><th>Standard VSW</th><th colspan="3">SWR Reflected Power Protection, the unit operates without damage or oscillation into any magnitude of phase or load impedance,</th></t<>	Standard VSW	SWR Reflected Power Protection, the unit operates without damage or oscillation into any magnitude of phase or load impedance,					
* Alternate Prime Power (poperfy at time of order)           QPB IFFE 488 & R5322 Remote Control           RF Sample Port on the Front Panel, 112R for rear panel           Internal 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 Systems Diagnostics & Status Indicators           Filament/Beam Elapeed Time Metering in hours           F Safety Interlock           Forward/Reflected Power Indication simultaneously on Front Panel display <b>P1 - Series Specifications:</b> Feagurency Range:           As Specified in Model Table           Read Output Power:           As Specified in Model Table           Read Output Popetanee:           Stated Output Popetanee:           Finge Power:           As Specified in Model Table           Read Output Popetanee:           Finge Power:           As Specified in Model Table           Time Power:           Finge Power:           Forward/Reflected Power Power           Finger North           Tipes Connector:           Tipes Connector:           Tipes Connector:           Prover Special in Model Table           Reator Powere           Output Connecto							
GPUB IEEE 488.8. KS22 Remote Control           RF Sample Port on the From Panel. 1128 for rear panel           Internal Pre-amplification to obtain rated output power with an input level of 0 dBm or less.           RF Input/Output Connectors on the From Panel. 1188 for rear panel           Internal Systems Diagnostics & Status Indicators           Filament/Beam Elapsed Time Metering in hours           FT-Series Snecifications;           Frequency Rang:         As Specified in Model Table           Rated Output Power:         As Specified in Model Table           Rated Output Power:         As Specified in Model Table           Rated Output Power:         As Specified in Model Table           Prover:         As Specified in Model Table           Rated Output Power:         As Specified in Model Table           Prime Power:         As Specified in Model Table           Prime Vower:         As Specified in Model Table           Prime Vower:         As Specified in Model Table           Diput Value Sample Connectors:         Fype N Female (n 168 GHz is WR0, 7.5 HS GHz is WRD750, 6.5 HS GHz is WRD50           RF Output Connector:         Diput NOW, 12.18 GHz is WR0, 7.5 HS GHz is WRD50, 6.5 HS GHz is WRD50           RF Output Connector:         Diput NOW on (2.18 GHz is WR0, 7.5 HS GHz is WRD50, 6.5 HS GHz is WRD50           RF Output Connecetor:         Diput NOW on (2.18 GHz is WR0, 7.5 HS GH		ternate Prime P					
RF Sample Port on the Front Panel, 112R for rear panel           Internal 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 Systems Diagnostics & Status Influctators           Filament/Bane Elgosed Time Metering in hours           RF Safety Interlock           Forward/Reflected Power Indication simultaneously on Front Panel display           PT Series Specifications:           Frequency Range:         As Specified in Model Table           Stated Output Power:         As Secified in Model Table           Gain @ Rated Power:         As Secified in Model Table           Bring Power:         As Required for Customer (Some are listed below)           Input Contectors:         Stop File of Customer (Some are listed below)           Input Connector:         Type N Franke, unless specified otherwise           Flippus Yample Connector:         Dolnes           Pub Connector:         Dolnes WRG2, 75-18 GHz is WRD506, 5-18 GHz is WRD608           RF Output Connector:         Dolnese WRG2, 75-18 GHz is WRD750, 6-5-18 GHz is WRD609           Pub Empt.         DUNC Condese           Pair VSWR-Chointy VSWR         Dol N2 Summark (Ling P P RF ranges available consult factory           Pub With Stare;         Up to 10 KIL2 Summark(Ling P P RF ranges available consult factory </th <th></th> <th colspan="4"></th>							
Internal 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 Systems Diagnostics & Status Indicators           Filament/Beam Elapsed Time Metering in hours           RF Safety Interlook           Forward/Reflected Power Indication simultaneously on Front Panel display           PT_Series Specifications:           Frequency Range:         As Specified in Model Table           Rated Output Power:         As Specified in Model Table           Gain @ Rated Ower:         As Specified in Model Table           Ref Japut Sample Connectors:         Type N Female unless specified otherwise           Type N Corn To Female up to S Orth         Status Sample Connectors:           Type N Corn To Female up to S Orth         Status Sample Connectors:           Output Connector:         Other waverquales available by request or specification (see Option 117)           Input VBW Cotuput VBWR:         20.1/2.5.1           Pade Multi Range:         100msec - 100msec           Pade Walth Range:         100msec - 100msec           Pade Walth Range:         100msec - 100msec           Pade Walth Range:         100msec - 100msec           Pade Valth Range:         100 to NG thigher PRF ranges subject to TWT spec.           Riss & Fall Time:         15							
RF Input/Output Connectors on the Front Panel, 118K for rear panel           Internal Systems Diagnostics & Status Indicators           Filament/Beam Flagsed Time Metering in hours           RF Safety Interlock           Forward/Reflected Power Indication simultaneously on Front Panel display           PT_Series Specifications:           Frequency Range:         As Specified in Model Table           Ratel Output Power:         As Sequified in Model Table           Ratel Output Power:         As Required for Customer (Some are listed below)           Imput output Impedance:         50 ohns           RF Input Somple Connectors:         70 obns           RF Input Connector:         70 ohns           RF Output Connector:         0 ohns           RF Output Connector:         0 obns           Input Connector:         0 obns           RF Output Connector:         0 obnerge:           PMay Diver:         0.5 Standard, Lingthe PRE ranges available compatificatory for special requirements           Puble Width Bragge:         Up to 10 KHz Standard, Higher PRE ranges available compatificatory           Puble Width Bragge:         10 to KHz Standard, Lingther PRE ranges available compatificatory           Puble Width Bragge:         10 to KHz Standard, Lingther PRE ranges available compatificatory           Puble Width Bragge:         10 to KHz Standard, Lin							
Internal Systems Diagnostics & Status Inductors           Filament/Beam Elapsed Time Metering in hours           RF Safety Interlock           Forward/Reflected Power Indication simultaneously on Front Panel display           PT-Series Specifications:           Frequency Rang:         As Specified in Model Table           Rated Output Power:         As Specified in Model Table           Gatal @ Rated Power:         As Specified in Model Table           Gatal @ Rated Power:         As Specified in Model Table           Input'output Impedance:         Go obms           RF Power         As Reguired for Customer (Some are listed below)           Input'output Impedance:         Go obms           RF Output Connector:         Upper SC or 716 Fernale up to S GH2,           RF / Output Connector:         Ubber waveguides available by request or specification (see Option 117)           Input VBWR/Output VSWR         2.01/2.51           Rober waveguides available by request or specification (see Option 117)           Input VBWR/Output VSWR         2.01/2.51           Rober waveguides available by request or specification (see Option 117)           Input VBWR/Output VSWR         2.01/2.51           Base Kall Inme:         100 see:           Pales Walth Range:         100 see:           Bas Statility Press Constron:         7.5 see m							
Filament/Ream Elapsed Time Metering in hours           RF Safety Interlock           RF Safety Interlock           Prequency Range:         As Specified in Model Table           Rated Output Power:         As Reguired for Castomer (Some are listed below)           Input/output Impedance:         Sto Ohms           RF Input/Sample Connector:         Type N Female, unless specified otherwise           Type N Female, unless specified otherwise         Type N Female, unless specified otherwise           RF Output Connector:         Other waveguides available by request or specification (see Option 117)           Input VSWR:COnjut VSWR         20:12:31           Palke Input:         BNC Female Front Pale (TTL into Sobhms standard]consult factory for special requirements           Palke With Mange:         Up to 100 KLZ Standard, Higher PRF ranges available consult factory           Palke Table:         MS standard, Unew K Higher PRF ranges available consult factory           Palke Output:         46 % Standard, Unew K Higher PRF ranges subject to TWT spec.           Palke Table:         15 stan stantum							
RF Safety Interlock Forward Reflected Power Indication simultaneously on Front Panel display           P1-Series Specifications;           Prequency Range:         As Specified in Model Table           Rated Output Power:         As Specified in Model Table           Gain (@ Rated Power:         As Specified in Model Table           Prime Power:         As Specified in Model Table           InputCotiput Impedance:         So ohms           BF Input? Sample Connectors:         Type N Female, unless specified otherwise           Type SC or 716 Female put of Sd Hz, 8-12 GHz is WR90, 12-18 GHz is WR82, 7.5-18 GHz is WRD50, 6.5-18 GHz is WRD50           RF Output Connector:         Other wavequides available by request or specification (see Option 117)           Input SWR/Output VSWR:         2.0.1/2.5:1           Pake MyR1         Divesc = 100ssec           Pake MyR1         Divesc = 100ssec<							
Forward/Reflected Power Indication simultaneously on Front Panel display           PT. Series Specifications:           Frequency Range:         As Specified in Model Table           Rated Output Power:         As Specified in Model Table           Gain @ Rated Power.         As Specified in Model Table           Isin @ Rated Power.         As Specified in Model Table           Isin @ Rated Power.         As Specified in Model Table           Isin @ Rated Power.         As Required for Customer (Some are listed below)           Ising Rated Power.         As Required for Customer (Some are listed below)           Ising Rated Power.         As Required for Customer (Some are listed below)           Ising Rated Power.         As Required for Customer (Some are listed below)           Ising Rated Power         As Required Intervention (Some are listed below)           Ising Rated Power         As Required Intervention (Some are listed below)           Ising Rated Power         As Required Intervention (Some are listed below)           Ising Rated Power         Differentiation (Some are	Filar	· · · · · · · · · · · · · · · · · · ·					
PT-Series Specifications:           Frequency Range:         As Specified in Model Table           Rated Output Power:         As Specified in Model Table           Gain (@ Rated Power:         As Regurited for Customer (Some are listed below)           Input/output Impedance:         So ohms           RF Input Sample Connector:         Type N Female, unless specified otherwise           Type SC or 716 Female up to 8 GHz,         By 12 GHz is WR06, 17.5-18 GHz is WRD50, 6.5-18 GHz is WRD650           RF Output Connector:         Other waveguides available by request or specification (see Option 117)           Input SWR:         2.01/12.3:1           Palse Input:         BNC Female Front Panel [TTL into 50ohms standard]consult factory           Palse Width Range:         Up to 100 KHZ Summum           Palse Nyut:         BNC Female Front Panel [TTL into 50ohms standard]consult factory           Daty Cycle:         6% Slandard, Lower & Higher PRF ranges available consult factory           Daty Cycle:         6% Slandard, Lower & Higher PRF ranges available consult factory           Palse Nuthth Jimer (Distortion)         1/-5 nsce maximum           Palse Nuthth Jimer (Distortion)         1/-5 nsce maximum           Palse Nuthth Jimer (Distortion)         0.5 dB / Houses, 0.1dB / House           Power Output Stability:         0.2dB Palse to Palse at constant drive level & PRF							
Frequency Range:         As Specified in Model Table           Rated Output Power:         As Specified in Model Table           Gain @ Rated Tower:         As Specified in Model Table           Gain @ Rated Tower:         As Specified in Model Table           Gain @ Rated Tower:         As Specified in Model Table           By Prime Power:         As Specified on Model Table           Ref Dutput Connector:         Type St Cor 716 Female up to 8 GHz,           Ref Cutput Connector:         Other waveyenides available by request or specification (see Option 117)           Input SVB/R/Output VSWR:         20.1/ 2.51           Pulse Input:         BNC Female Front Panel (TTL: into 500hms standard) (norsult factory for special requirements           Pulse Width Mange:         100nsec - 100usee           PMF Range:         Up to 100 KHz Istandrud, Higher PRF ranges available consult factory           Duty Cycle:         6% Standard, Lower & Higher PRF ranges available consult factory           Pulse Fulter:         1/-5 nsce maximum           Pulse Output Stability:         250 nsce maximum           Pulse Output Stability:         250 nsce maximum	Forw						
Frequency Range:         As Specified in Model Table           Rated Output Power:         As Specified in Model Table           Gain @ Rated Tower:         As Specified in Model Table           Gain @ Rated Tower:         As Specified in Model Table           Gain @ Rated Tower:         As Specified in Model Table           By Prime Power:         As Specified on Model Table           Ref Dutput Connector:         Type St Cor 716 Female up to 8 GHz,           Ref Cutput Connector:         Other waveyenides available by request or specification (see Option 117)           Input SVB/R/Output VSWR:         20.1/ 2.51           Pulse Input:         BNC Female Front Panel (TTL: into 500hms standard) (norsult factory for special requirements           Pulse Width Mange:         100nsec - 100usee           PMF Range:         Up to 100 KHz Istandrud, Higher PRF ranges available consult factory           Duty Cycle:         6% Standard, Lower & Higher PRF ranges available consult factory           Pulse Fulter:         1/-5 nsce maximum           Pulse Output Stability:         250 nsce maximum           Pulse Output Stability:         250 nsce maximum							
Rated Dower:       As Specified in Model Table         Chin @, Rated Power:       As Specified in Model Table         Prime Power:       As Required for Customer (Some are listed below)         Input/Output Impedance:       50 ohms         RF Input/Sample Connectors:       Type N Female, unless specified otherwise         Type SC or 716 Female up to 8 GHz,       8-12 GHz is WR00,21-8 GHz is WR0750, 6.5-18 GHz is WRD50         RF Output Connector:       Other waveguides available by request or specification (see Option 117)         Input SVBNCotuput VSWR:       20.01/2.3-11         Pulse Input:       BNC Female From Panel [TTL into 50ohms standard]consult factory for special requirements         Pulse Width Range:       100 mec - 100 usec         PKF Range:       Up to 100 KHz Standard, Higher PRF ranges available consult factory         Daty Cycle:       6% Standard, Lower & Higher PRF ranges subject to TWT spec.         Rise & Fall Time:       15 ns nominal, 20 ns maximum         Pulse Dividit (TC) (bistortion)       4/5 fastee maximum         Pulse Delay:       250 nscc maximum         Pulse Delay:       250 nscc maximum         Pulse Delay:       0 dB         Phase Stability Pulse to Pulse to Pulse at constand drive level & PRF         Pulse Delay:       0 dB         Phase Stability Pulse to Pulse:       4/1 digree nominal <th></th> <th>cations:</th> <th></th>		cations:					
Claim & Rated Power:       As Specified in Model Table         Prime Power:       As Required for Customer (Some are listed below)         Inputioutjut Impedance:       S0 dhms         RF Input/ Sample Connectors:       Type SC or 716 Fenale up to 8 GHz,         R F Output Connector:       Other waveguides available by request or specification (see Option 117)         Input SVBK/Output VSWR:       2.0.17.2.5.1         Pulse Input:       BNC Fenale From Panel (TTL into 500hms standard) consult factory for special requirements         Pulse Input:       BNC Fenale From Panel (TTL into 500hms standard) consult factory         Pulse Vietle:       6% Standard, Lower & Higher PRF ranges available consult factory         Pulse to Pulse 501ter:       15 ns nominal; 20 ns maximum         Pulse to Pulse 501ter:       1-5 5 nsce maximum         Pulse Nordin Statistity:       200 nece transimum         Pulse Rowery Time:       15 0 nsce maximum         Pulse Nordin Statistity:       0.020 Regression         Pulse Statistity:       0.2018 Pulse to Pulse Statistics         Pulse Statistic:       0.030 Regression         Pulse Statistic:       10 osce transimum         Pulse Statistic:       10 onsce transimum         Pulse Statistic:       0.2018 Pulse to Pulse Statistic:         Pulse Statistic:       0.2018 Pulse to Pulse							
Prime Power:         As Required for Customer (Some are listed below)           Input/output Impedance:         50 ohms           F Input/Sample Connector:         Type N Fernale, unless specified otherwise           Type SC or 716 Fernale up to 8 GHz,           8-1 Gutty is WR90, 12-18 GHz is WR20, 75-18 GHz is WRD750, 6.5-18 GHz is WRD650           Other waveguides available by request or specification (see Option 117)           Input /SWR/Output VSWR:         BNC Fernale Front Panel [TTL into 50ohms standard] consult factory for special requirements           Pulse Input:         BNC Fernale Front Panel [TTL into 50ohms standard] consult factory           Pulse Up to 100 KHz Standard, Lingher PRF ranges available consult factory         Dut Cycle:           Ø% Standard, Lower & Higher PRF ranges subject to TWT spec.         Rise & Fall Time:           Pulse Dulse Litter:         +/- 5 nsee maximum           Pulse Evorey Time:         15 ns nominal; 20 ns maximum           Pulse Coropi:         0.5 dB/100xecs, 0.14B/10xec           Power Output Stability:         0.24B Pulse at constant drive level & PRF           Pulse Ovorit Ratio:         80 dB           Phase Stability Pulse to Pulse:         +/-1 degree nominal           Preserver:         0.5 0B/100xecs, 0.14B/10xec           Power Output Stability:         0.24B Pulse to Pulse at constant drive level & PRF           Pulse On/OTR Ratio: <th></th> <th></th> <th></th>							
Inputoupul Impedance: 50 ohms  RF Input/Sample Connectors: Type N Female, unless specified otherwise Type SC or 716 Female, unless specified otherwise RF Output Connector: 0-01der waveguides available by requestor specification (see Option 117) Input VSWR/Output VSWR: 2.0.1/ 2.5.1 Pulss Input: BBC Fermale Front Pranel [TTL into 50ohms standard] consult factory for special requirements Pulse Width Range: 100nsec - 100usee PRF Range: Up to 100 KHz Standard, Higher PRF ranges available consult factory Duty Cycle: 6% Standard, Lower & Higher PRF ranges available consult factory Duty Cycle: 6% Standard, Lower & Higher PRF ranges available consult factory Duty Cycle: 15 ns comaining, 20 ns maximum Pulse Voltabe Inter: 1-5 nsec maximum Pulse Voltabe Inter: 1-5 nsec maximum Pulse Delay: 250 nsec maximum Pulse Delay: 250 nsec maximum / 180 nsec typical Pulse Proop: 0-5 dB (100usecs, 0.1dB /100usec Power Output Stability: 0-2dB Pulse to Pulse at constant drive level & PRF Pulse On/OTI Ratio: 80 dB Pulse Store VI Cycle: 0.70 C non-operating Humidity: 0.75 C Operating, -40° to 70° C non-operating Cooling System: Air cooled, self-contained Modulation: All types, AM, FM, Pulse Configuration: Rack Mount as specified in Model Table System: Air cooled, self-contained Standard Prime Powers; Cool and System: Air cooled, self-contained Standard Prime Powers other then listed are subject to availability Some							
RF         Input         Sample Connectors:         Type N G or 716         Female, unless specified otherwise           Type SC or 716         Female up to 8 GHz, 8-12 GHz is WR50, 12-18 GHz is WRD750, 6.5-18 GHz is wrD750, 6.5-10 GHz is wrD750, 6.5-10 GHz is wrD750, 6.5-10 GHz is wrD750, 6.5-10 GHZ							
Type SC or 716 Female up to 8 GHz, 8-12 GHz is WR00, 12-18 GHz is WR02, 7.5-18 GHz is WRD750, 6.5-18 GHz is WRD650           RF Output Connector:         Other waveguides available by request or specification (see Option 117)           Input VSWR.Output VSWR:         20:1/-2.5:1           BNC Female Front Panel [TTL into 50ohms standard]consult factory for special requirements           Pulse Input:         BNC Female Front Panel [TTL into 50ohms standard]consult factory           Data Cycle:         6% Standard, Lower & Higher PRF ranges savilable consult factory           Duty Cycle:         6% Standard, Lower & Higher PRF ranges savilable consult factory           Pulse to Pulse Inter:         15 ns nominal; 20 ns maximum           Pulse to Pulse Inter:         15 ns nominal; 20 ns maximum           Pulse To Pulse Inter:         150 nsec maximum           Pulse Delay:         250 nsec maximum           Pulse Deay:         250 nsec maximum           Pulse Drabits:         0.487/100usec           Power Output Stability:         0.24B Pulse to Pulse;           Pulse Drabits:         0.487/100usecs, 0.108/10usec           Power Output Stability:         0.54 B/100usecs, 0.100 non-operating           Pulse Drabits:         0.48 Dus to Pulse; and; 5.000 non-operating           Humidity:         95% without condensation           Altitude:         10.090 feet operating; 5.000 non-ope	i						
8-12 GHz is WR90, 12-18 GHz is WR62, 75-18 GHz is WRD50, 65-18 GHz is WRD50           RF Output Connector:         Other waveguides available by request or specification (see Option 117)           Pulse Hight         BNC Female Front Panel {TTL into 50chms standard] consult factory for special requirements           Pulse Width Range:         Up to 100 KHz Standard, Higher PRF ranges available consult factory           Pulse Width Range:         Up to 100 KHz Standard, Higher PRF ranges subject to TWT spec.           Rise & Fall Time:         15 ns nominal, 20 ns maximum           Pulse Width Jitter:         +/- 5 nsee maximum           Pulse Width Jitter(Distortion)         +/- 5 nsee maximum           Pulse Rovery Time:         150 nsee maximum           Pulse Covery Time:         150 nsee maximum           Pulse Delay:         250 nsee maximum           Pulse Delay:         0.2 dB Pulse to Pulse at constant drive level & PRF           Pulse Dorp:         0.4 dB/10usces, 0.1 dB/10usce           Power Output Stability:         0.2 dB Pulse to Pulse at constant drive level & PRF           Pulse Dorp:         9'to 50° C operating, -40° to 70° C non-operating           Humidity:         95% without condensation           Altitude:         10,000 feet operating, 50,000 non-operating           Cooling System:         Air cooled, self-contained           Modulation:         A	KF Input/ Sample Cor	inectors:					
RF Output Connector:         Other waveguides available by request or specification (see Option 117)           Input VSWR:         20:17.2.5:1           Pulse Input:         BNC Female Front Panel {TTL into 50ohms standard]consult factory for special requirements           Pulse Width Range:         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 for Pulse futter:         +/- 5 nsec maximum           Pulse Revery Time:         150 nsec maximum           Pulse Revery Time:         150 nsec maximum           Pulse Revery Time:         0.5 dB/100usecs, 0.1dB/10usec           Power Output Stability:         0.2dB Pulse to Pulse at constant drive level & PRF           Pulse Revery Time:         0.5 dB/100usecs, 0.1dB/10usec           Power Output Stability:         0.2dB Pulse to Pulse at constant drive level & PRF           Pulse Droop:         0.5 dB/2dPulse to Pulse; 50 non-operating           Humidity:         95% without condensation           Altitude:         10,000 feet operating; .40° to 70° C non-operating           Cooling System:         Air cooled, self-contained           Modulation:         All types, AM, FM, Pulse           Configuration:         Rak Mount as specified							
Input VSWR/Output VSWR:         2 0:1/2.5:1           Pulse Input:         BNC Female Front Panel (TTL into 50ohns standard) consult factory for special requirements           Pulse Width Range:         Up to 100 KHz Standard, Higher PRF ranges available consult factory           Duty Cycle:         6% Standard, Lover & Higher PRF ranges available consult factory           Duty Cycle:         6% Standard, Lover & Higher PRF ranges subject to TWT spee.           Rise & Fall Time:         15 ns nominal, 20 ns maximum           Pulse Width Jitter, Clistorion         +/- 5 nsee maximum           Pulse Width Stange:         150 nsee maximum           Pulse Width Stange:         150 nsee maximum           Pulse Width Stange:         250 nsee maximum           Pulse Width Stange:         0.5 dB/100usce, 0.1dB/10usce           Power Output Stability:         0.2 dB Pulse to Pulse at constant drive level & PRF           Pulse Oropi:         0.7 dB/200usce, 0.1dB/10usce           Power Output Stability:         0.2 dB Pulse to Pulse at constant drive level & PRF           Pulse Oropi:         0.3 dB/200usce, 0.000 non-operating           Humidity:         9% to 50° C operating, 40° to 70° C non-operating           Humidity:         9% to 50° C operating, 50,000 non-operating           Configgration:         Rack Mount as specified in Model Table           Spurious Outputs:	RF Output Connector						
Pulse Input:         BNC Female Front Panel {TTL into 50ohms standard}consult factory for special requirements           Pulse Width Range:         100usec - 100usec         Pulse Width Range:         100nsec - 100usec           Pulse Width Range:         Up to 100 KHz Standard, Higher PRF ranges available consult factory         Pulse Very Cele:         6% Standard, Lower & Higher PRF ranges subject to TWT spec.           Rise & Fall Time:         15 ns nominal; 20 ns maximum         Pulse Very Time:         15 ns nominal; 20 ns maximum           Pulse Dulse Jitter:         +/- 5 nsee maximum         Pulse Very Time:         150 nsee maximum           Pulse Dulse Ditter:         +/- 5 nsee maximum         Pulse Delae:         250 nsee maximum / 180 nsee typical           Pulse Droop:         0.5 dB/100usecs; 0.1dB/10usec         Polse Droop:         0.5 dB/10usec           Pouse Droff Ratio:         80 dB         Phase Stability Pulse to Pulse:         +/-1 degree nominal           Temperature:         0' to 50° C operating, -40° to 70° C non-operating         Plase On/Off Ratio:         S0 dB           Modulation:         All types, AM, FM, Pulse         Configuration:         Rack Mount as specified in Model Table           Spurious Outputs:         <-60 dBe nominal         Standard Prime Powers;         1000/2002/202/204/AVAC ± 10% 50/60 Hz, single phase           1000_20152, 15200 so 702/202/203/AVAC ± 10% 50/60 Hz, single phase<							
Pulse Width Range:         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           Pulse Delay:         0.5 dB/100usces, 0.1dB/10usce           Poulse Output Stability:         0.2dB Pulse to Pulse at constant drive level & PRF           Pulse On/Off Ratio:         80 dB           Phase Stability Pulse to Pulse:         +/-1 degree nominal           Temperature:         O' to 50° C operating, -40° to 70° C non-operating           Humidity:         9% without condensation           Altitude:         10,000 feet operating, 50,000 non-operating           Cooling System:         Air cooled, self-contained           Modulation:         All types, AM, FM, Pulse           Configuration:         Rack Mount as specified in Model Table           Spurious Outputs:         <-60 dBe nominal           Conting:         50/60 Hz, single phase           100/200VAC ±10%	·	15,011					
PRF Range:       Up to 100 KHz Standard, Higher PRF ranges available consult factory         Duty Cycle:       6% Standard, Lower & Higher PRF ranges subject to TWT spee.         Rise & Fall Time:       15 ns nominal, 20 ns maximum         Pulse to Pulse Jitter:       +/- 5 nsee maximum         Pulse to Pulse Jitter:       +/- 5 nsee maximum         Pulse Recovery Time:       150 nsee maximum         Pulse Delay:       250 nsee maximum         Pulse Delay:       0.5 dB/100usees, 0.1dB/10usee         Power Output Stability:       0.2dB Pulse to Pulse at constant drive level & PRF         Pulse Don/Off Ratio:       80 dB         Phase Stability Pulse to Pulse:       +/-1 degree nominal         Temperature:       0° to 50° C operating, -40° to 70° C non-operating         Humidity:       95% without condensation         Altitude:       10,000 feet operating, 50,000 non-operating         Configuration:       Rack Mount as specified in Model Table         Spurious Outputs:       <-Kod BE nominal         Standard Prime Powers;       1000 Outputs:         1000,115, 120 VAC ± 10% 50/60 Hz, single phase       100/200VAC/15/208 or 2022/202/20/VAC ± 10% 50/60 Hz, single phase         1002,01VAC,115/208 or 2022/202/20/VAC ± 10% 50/60 Hz, single phase       100/200VAC/15/208 or 2022/202/20/VAC ± 10% 50/60 Hz, single phase         1002/200 VAC							
Daty Cycle:       6% Standard, Lower & Higher PRF ranges subject to TWT spec.         Rise & Fall Time:       15 ns nominal; 20 ns maximum         Pulse to Pulse Differ:       1/-5 nsec maximum         Pulse Differ:       1/-5 nsec maximum         Pulse Differ:       1/5 nsec maximum         Pulse Differ:       0.5 dB/100usecs, 0.1dB/10usec         Polse Differ:       0.5 dB/100usecs, 0.1dB/10usec         Power Output Stability:       0.2dB Pulse to constant drive level & PRF         Pulse Dorop:       0.5 dB/100usecs, 0.1dB/10usec         Power Output Stability:       0.2dB Pulse to constant drive level & PRF         Pulse On/Off Ratio:       80 dB         Phase Stability Pulse to Pulse:       +/-1 degree nominal         Temperature:       0° to 50° C operating, -40° to 70° C non-operating         Humidity:       95% without condensation         Altitude:       10,000 feet operating, 50,000 non-operating         Cooling System:       Air cooled, self-contained         Modulation:       All types, AM, FM, Pulse         Configuration:       Rack Mount as specified in Model Table         Spurious Outputs:       <-60 dB e nominal         Standard Prime Powers:          100,2012/030, 240VAC ±10% 50/60 Hz, single phase         100/200VAC,115/208 or 200/220/230/240VAC	v						
Rise & Fall Time:       15 ns nominal; 20 ns maximum         Pulse Vidtb Jitter:       +/- 5 nsee maximum         Pulse Widtb Jitter:(Distortion)       +/- 5 nsee maximum         Pulse Recovery Time:       150 nsee maximum / 180 nsee typical         Pulse Delay:       250 nsee maximum / 180 nsee typical         Pulse Droop:       0.5 dB/100usces, 0.1dB/10usce         Power Output Stability:       0.2dB Pulse to Pulse at constant drive level & PRF         Pulse Dn/Off Ratio:       80 dB         Phase Stability Pulse to Pulse:       +/-1 degree nominal         Temperature:       0° to 50° C operating, -40° to 70° C non-operating         Humidity:       95% without condensation         Altitude:       10.000 feet operating, 50,000 non-operating         Cooling System:       Air cooled, self-contained         Modulation:       All types, AM, FM, Pulse         Configuration:       Rack Mount as specified in Model Table         Spurious Outputs:       <-60 dBe nominal         Standard Prime Powers:       200, 220, 230, 240VAC ± 10% 50/60 Hz, single phase         200, 220, 230, 240VAC ± 10% 50/60 Hz, single phase       200         200, 220, 230, 240VAC ± 10% 50/60 Hz, tingle phase       200         200, 202, 230, 240VAC ± 10% 50/60 Hz, tingle phase       200         200, 202, 230, 240VAC ± 10% 50/60 H			6% Standard. Lower & Higher PRF ranges subject to TWT spec.				
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/100usces, 0.1dB/10usce         Power Output Stability:       0.2dB Pulse to Pulse at constant drive level & PRF         Pulse On/Off Ratio:       80 dB         Phase Stability Pulse to Pulse:       +/- 1 degree nominal         Temperature:       0° to 50° C operating, -40° to 70° C non-operating         Humidity:       95% without condensation         Altitude:       10,000 feet operating, 50,000 non-operating         Cooling System:       Air cooled, self-contained         Modulation:       All types, AM, FM, Pulse         Configuration:       Rack Mount as specified in Model Table         Spirious Outputs:       <-60 dBc nominal         Standard Prime Powers:       100,200/201/230/240VAC ± 10% 50/60 Hz, single phase         100/200VAC,115/208 or 200/220/230/240VAC ± 10% 50/60 Hz, three phase Wye or Delta and/or 400 Hz power is available.         Special Prime Powers other then listed are subject to availability         Some Available Options for IFI PT - Series TWT Amplifiers         Option 103 G/D:       VSWR Reflected Power receeds a preset limit of 3.0:1. The unit operates without dama							
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 Dn/Off Ratio:       80 dB         Phase Stability Pulse to Pulse:       +/-1 degree nominal         Temperature:       0° to 50° C operating, -40° to 70° C non-operating         Humidity:       95% without condensation         Altitude:       10,000 feet operating, 50,000 non-operating         Cooling System:       Air cooled, self-contained         Modulation:       All types, AM, FM, Pulse         Configuration:       Rack Mount as specified in Model Table         Spurious Outputs:       <-60 dBe nominal         Standard Prime Powers;       1000, 115, 120 VAC ±10% 50/60 Hz, single phase         100, 200, 230, 240VAC ±10% 50/60 Hz, single phase       200, 220, 230, 240VAC ±10% 50/60 Hz, single phase         100/200VAC,115/208 or 200/220/230/240VAC ±10% 50/60 Hz, three phase Wye or Delta and/or 400 Hz power is available.         Special Prime Powers other then listed are subject to availability         Some Available Options for IFI 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 out							
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 Dn/Off Ratio:       80 dB         Phase Stability Pulse to Pulse:       +/-1 degree nominal         Temperature:       0° to 50° C operating, -40° to 70° C non-operating         Humidity:       95% without condensation         Altitude:       10,000 feet operating, 50,000 non-operating         Cooling System:       Air cooled, self-contained         Modulation:       All types, AM, FM, Pulse         Configuration:       Rack Mount as specified in Model Table         Spurious Outputs:       <-60 dBe nominal         Standard Prime Powers;       1000, 115, 120 VAC ±10% 50/60 Hz, single phase         100, 200, 230, 240VAC ±10% 50/60 Hz, single phase       200, 220, 230, 240VAC ±10% 50/60 Hz, single phase         100/200VAC,115/208 or 200/220/230/240VAC ±10% 50/60 Hz, three phase Wye or Delta and/or 400 Hz power is available.         Special Prime Powers other then listed are subject to availability         Some Available Options for IFI 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 out							
Pulse Droop:       0.5 dB/100usecs, 0.1dB/10usecf         Power Output Stability:       0.2dB Pulse to Pulse at constant drive level & PRF         Pulse On/Off Ratio:       80 dB         Phase Stability Pulse to Pulse:       +/-1 degree nominal         Temperature:       0° to 50° C operating, -40° to 70° C non-operating         Humidity:       95% without condensation         Altitude:       10,000 feet operating, 50,000 non-operating         Cooling System:       Air cooled, self-contained         Modulation:       All types, AM, FM, Pulse         Configuration:       Rack Mount as specified in Model Table         Spurious Outputs:       <-60 dBe nominal         Standard Prime Powers:       100/200 VAC ±10% 50/60 Hz, single phase         200, 220, 230, 240VAC ±10% 50/60 Hz, single phase       100/200VAC, ±10% 50/60 Hz, single phase         100/200VAC, 115/208 or 200/220/230/240VAC ±10% 50/60 Hz, three phase Wye or Delta and/or 400 Hz power is available.       Special Prime Powers other then listed are subject to availability         Some Available Options for IFI 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 output power when the average reflected power exceeds a preset limit of 3.0:1.         The unit operates without damage or oscillation into any magnitude of phase or load impedance.       Option 110-1E: <th colspan="2"></th> <th>150 nsec maximum</th>			150 nsec maximum				
Power Output Stability:       0.2dB Pulse to Pulse at constant drive level & PRF         Pulse On/Off Ratio:       80 dB         Phase Stability Pulse to Pulse:       +/-1 degree nominal         Temperature:       0° to 50° C operating, -40° to 70° C non-operating         Humidity:       95% without condensation         Altitude:       10,000 feet operating, 50,000 non-operating         Cooling System:       Air cooled, self-contained         Modulation:       All types, AM, FM, Pulse         Configuration:       Rack Mount as specified in Model Table         Spurious Outputs:       <-60 dBe nominal         Standard Prime Powers:       <-60 dBe nominal         100,200 VAC ±10% 50/60 Hz, single phase          100/200VAC,115/208 or 200/220/230/240VAC ±10% 50/60 Hz, three phase Wye or Delta and/or 400 Hz power is available.         Special Prime Powers other then listed are subject to availability         Some Available Options for IFI 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 output power when the average reflected power exceeds a preset limit of 3.0:1. The unit operates without damage or oscillation into any magnitude of phase or load impedance.         Option 110-1E:       GPIB IEEE-448 8 8a32 and Ethernet Remote Control         Option 110-2:       GPIB IEEE-448 8 and	Pulse Delay:						
Pulse On/Off Ratio:       80 dB         Phase Stability Pulse to Pulse:       +/-1 degree nominal         Temperature:       0° to 50° C operating, -40° to 70° C non-operating         Humidity:       95% without condensation         Altitude:       10,000 feet operating, 50,000 non-operating         Cooling System:       Air cooled, self-contained         Modulation:       All types, AM, FM, Pulse         Configuration:       Rack Mount as specified in Model Table         Spurious Outputs:       <-60 dBc nominal         Standard Prime Powers:          100, 115, 120 VAC ±10% 50/60 Hz, single phase          200, 220, 230, 240VAC ±10% 50/60 Hz, single phase          100/20VAC, 115/208 or 200/220/230/240VAC ±10% 50/60 Hz, three phase Wye or Delta and/or 400 Hz power is available.         Special Prime Powers other then listed are subject to availability         Some Available Options for IFI 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 output power when the average reflected power exceeds a preset limit of 3.0:1. The unit operates without damage or oscillation into any magnitude of phase or load impedance.         Option 110-1E:       GPIB IEEE-488 RS232 and Ethernet Remote Control         Option 110-2:       GPIB IEEE-488 and RS 422 Remote Control			0.5 dB/100usecs, 0.1dB/10usec				
Phase Stability Pulse to Pulse:       +/-1 degree nominal         Temperature:       0° to 50° C operating, -40° to 70° C non-operating         Humidity:       95% without condensation         Altitude:       10,000 feet operating, 50,000 non-operating         Cooling System:       Air cooled, self-contained         Modulation:       All types, AM, FM, Pulse         Configuration:       Rack Mount as specified in Model Table         Spurious Outputs:       <-60 dBc nominal         Standard Prime Powers:          100, 115, 120 VAC ±10% 50/60 Hz, single phase          200, 220, 230, 240VAC ±10% 50/60 Hz, single phase          100/200VAC,115/208 or 200/220/230/240VAC ±10% 50/60 Hz, three phase Wye or Delta and/or 400 Hz power is available.         Special Prime Powers other then listed are subject to availability         Some Available Options for IFI 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 output power when the average reflected power exceeds a preset limit of 3.0:1.         The unit operates without damage or oscillation into any magnitude of phase or load impedance.         Option 110-1E:       GPIB IEEE-488 and RS 422 Remote Control         Option 110-2:       GPIB IEEE-488 and RS 422 Remote Control	Power Output Stabilit	y:					
Temperature:       0° to 50° C operating, -40° to 70° C non-operating         Humidity:       95% without condensation         Altitude:       10,000 feet operating, 50,000 non-operating         Cooling System:       Air cooled, self-contained         Modulation:       All types, AM, FM, Pulse         Configuration:       Rack Mount as specified in Model Table         Spurious Outputs:       <-60 dBc nominal         Standard Prime Powers:          100, 115, 120 VAC ±10% 50/60 Hz, single phase          200, 220, 230, 240VAC ±10% 50/60 Hz, single phase          100/200VAC, 115/208 or 200/220/230/240VAC ±10% 50/60 Hz, three phase Wye or Delta and/or 400 Hz power is available.         Special Prime Powers other then listed are subject to availability         Some Available Options for IFI 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 output power when the average reflected power exceeds a preset limit of 3.0:1.         The unit operates without damage or oscillation into any magnitude of phase or load impedance.         Option 110-1E:       GPIB IEEE-488 and RS 422 Remote Control         Option 110-2:       GPIB IEEE-488 and RS 422 Remote Control			80 dB				
Humidity:       95% without condensation         Altitude:       10,000 feet operating, 50,000 non-operating         Cooling System:       Air cooled, self-contained         Modulation:       All types, AM, FM, Pulse         Configuration:       Rack Mount as specified in Model Table         Spurious Outputs:       <-60 dBc nominal         Standard Prime Powers:          100, 115, 120 VAC ±10% 50/60 Hz, single phase          200, 220, 230, 240VAC ±10% 50/60 Hz, single phase          100/200VAC, 115/208 or 200/220/230/240VAC ±10% 50/60 Hz, three phase Wye or Delta and/or 400 Hz power is available.         Special Prime Powers other then listed are subject to availability         Some Available Options for IFI 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 output power when the average reflected power exceeds a preset limit of 3.0:1. The unit operates without damage or oscillation into any magnitude of phase or load impedance.         Option 110-1E:       GPIB IEEE-488 RS232 and Ethernet Remote Control         Option 110-2:       GPIB IEEE-488 and RS 422 Remote Control	· · · · · · · · · · · · · · · · · · ·	to Pulse:					
Altitude:       10,000 feet operating, 50,000 non-operating         Cooling System:       Air cooled, self-contained         Modulation:       All types, AM, FM, Pulse         Configuration:       Rack Mount as specified in Model Table         Spurious Outputs:       <-60 dBc nominal         Standard Prime Powers:       <-60 dBc nominal         100, 115, 120 VAC ±10% 50/60 Hz, single phase          200, 220, 230, 240VAC ±10% 50/60 Hz, single phase          100/200VAC,115/208 or 200/220/230/240VAC ±10% 50/60 Hz, three phase Wye or Delta and/or 400 Hz power is available.         Special Prime Powers other then listed are subject to availability         Some Available Options for IFI 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 output power when the average reflected power exceeds a preset limit of 3.0:1. The unit operates without damage or oscillation into any magnitude of phase or load impedance.         Option 110-1E:       GPIB IEEE-488 RS232 and Ethernet Remote Control         Option 110-2:       GPIB IEEE-488 and RS 422 Remote Control							
Cooling System:       Air cooled, self-contained         Modulation:       All types, AM, FM, Pulse         Configuration:       Rack Mount as specified in Model Table         Spurious Outputs:       <-60 dBc nominal         Standard Prime Powers:          100, 115, 120 VAC ±10% 50/60 Hz, single phase          200, 220, 230, 240VAC ±10% 50/60 Hz, single phase          100/200VAC,115/208 or 200/220/230/240VAC ±10% 50/60 Hz, three phase Wye or Delta and/or 400 Hz power is available.          Special Prime Powers other then listed are subject to availability          Some Available Options for IFI 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 output power when the average reflected power exceeds a preset limit of 3.0:1. The unit operates without damage or oscillation into any magnitude of phase or load impedance.         Option 110-1E:       GPIB IEEE-488 RS232 and Ethernet Remote Control         Option 110-2:       GPIB IEEE-488 and RS 422 Remote Control							
Modulation:       All types, AM, FM, Pulse         Configuration:       Rack Mount as specified in Model Table         Spurious Outputs:       <-60 dBc nominal         Standard Prime Powers:          100, 115, 120 VAC ±10% 50/60 Hz, single phase          200, 220, 230, 240VAC ±10% 50/60 Hz, single phase          100/200VAC, 115/208 or 200/220/230/240VAC ±10% 50/60 Hz, three phase Wye or Delta and/or 400 Hz power is available.          Special Prime Powers other then listed are subject to availability          Some Available Options for IFLPT- 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 output power when the average reflected power exceeds a preset limit of 3.0:1. The unit operates without damage or oscillation into any magnitude of phase or load impedance.         Option 110-1E:       GPIB IEEE-488 RS232 and Ethernet Remote Control         Option 110-2:       GPIB IEEE-488 and RS 422 Remote Control							
Configuration:       Rack Mount as specified in Model Table         Spurious Outputs:       <60 dBc nominal         Standard Prime Powers:          100, 115, 120 VAC ±10% 50/60 Hz, single phase          200, 220, 230, 240VAC ±10% 50/60 Hz, single phase          100/200VAC,115/208 or 200/220/230/240VAC ±10% 50/60 Hz, three phase Wye or Delta and/or 400 Hz power is available.          Special Prime Powers other then listed are subject to availability          Some Available Options for IF1 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 output power when the average reflected power exceeds a preset limit of 3.0:1. The unit operates without damage or oscillation into any magnitude of phase or load impedance.         Option 110-1E:       GPIB IEEE-488 RS232 and Ethernet Remote Control         Option 110-2:       GPIB IEEE-488 and RS 422 Remote Control							
Spurious Outputs:       <-60 dBc nominal         Standard Prime Powers:          100, 115, 120 VAC ±10% 50/60 Hz, single phase          200, 220, 230, 240VAC ±10% 50/60 Hz, single phase          100/200VAC,115/208 or 200/220/230/240VAC ±10% 50/60 Hz, three phase Wye or Delta and/or 400 Hz power is available.          Special Prime Powers other then listed are subject to availability           Some Available Options for IFI 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 output power when the average reflected power exceeds a preset limit of 3.0:1. The unit operates without damage or oscillation into any magnitude of phase or load impedance.          Option 110-1E:       GPIB IEEE-488 RS232 and Ethernet Remote Control          Option 110-2:       GPIB IEEE-488 and RS 422 Remote Control							
Standard Prime Powers:         100, 115, 120 VAC ±10% 50/60 Hz, single phase         200, 220, 230, 240VAC ±10% 50/60 Hz, single phase         100/200VAC,115/208 or 200/220/230/240VAC ±10% 50/60 Hz, three phase Wye or Delta and/or 400 Hz power is available.         Special Prime Powers other then listed are subject to availability         Some Available Options for IFI 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 output power when the average reflected power exceeds a preset limit of 3.0:1. The unit operates without damage or oscillation into any magnitude of phase or load impedance.         Option 110-1E:       GPIB IEEE-488 RS232 and Ethernet Remote Control         Option 110-2:       GPIB IEEE-488 and RS 422 Remote Control							
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Option 110-2: GPIB IEEE-488 and RS 422 Remote Control	Ontion 110-1F.						
IUntion 110-3 IGPIB IEEE-488 and RS 485 Remote Control	Option 110-2. Option 110-3		GPIB IEEE-488 and RS 422 Renote Control				
			Chassis Slides for 19" Rack Mounting				
Option 118F or R: Front Panel RF Connections 118R for Rear Panel RF Connections							
		Reflected RF Sample Port -40, -50 or -60dB N or SMA, Front or Rear Panel					

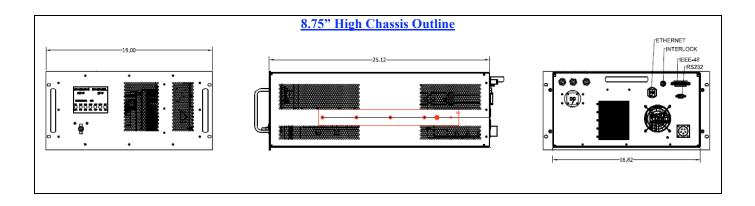
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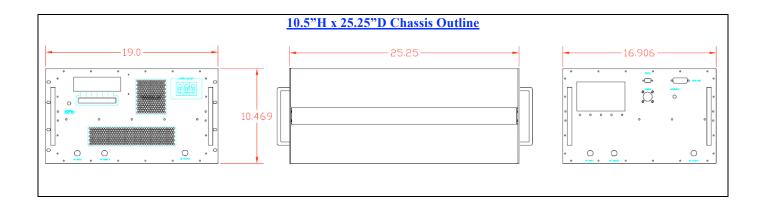
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## PT-1KW Series Pulse TWT Microwave Power Amplifiers 1.0 – 18 GHz • 1,000 – 2,000 watts, Minimum Rated Power

**Outline Configurations:** 





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