SMX Series Solid State Amplifiers

10KHz - 1000MHz • 10 Watts to 1000 Watts Minimum Rated Power

Instruments for Industry, SMX-series Amplifiers provide outstanding RF performance. These products are available in a wide range of power levels from 10 watts to 1000 watts in the 10KHz – 1000 MHz frequency range. These state-of-the-art solid-state power amplifiers are specifically designed for laboratory and all testing applications.

IFI RF amplifiers are very conservatively designed to operate below maximum ratings for ruggedness and long term reliability. Sixth generation LDMOS Transistors provide reliable brute-power performance at frequencies up to 1000MHz.

Our RF power amplifiers feature individually shielded aluminum assemblies for the module level. This concept of a shielded modular design minimizes internally produced EMI signal leakage and provides easy access for field service and rapid turnaround at depot level repair facilities.

From the ground up, the "SMX-SERIES" products are structurally engineered to withstand operation in mechanically hostile environments. Ruggedized versions are available for applications that will be exposed to very harsh environments.

Features

- Solid State Design
- Rugged Construction & High Reliability
- Instantaneous Broadband Frequency range
- Backlit screen
- Modular Design Construction
- Integrated Force Air Cooling
- Self-diagnostic circuitry
- IEEE-488 interface & RS232 Remote









Models & General Specifications							
Model	Frequency	Rated Power	P1dB Power	Gain (dB)	KVA	Weight	Size
Number	Range (MHz)	(Watts) Minimum	Watts Minimum	Minimum		In Pounds	In Inches
SMX10	0.1-1000	10	10	40	.1KVA	35 Lbs	5.25" H x 19" W x 24" D
SMX25	0.1-1000	25	25	44	.2KVA	40 Lbs	5.25" H x 19" W x 24" D
SMX50	0.1-1000	50	50	47	.4KVA	75 Lbs	7.00" H x 19" W x 24" D
SMX100	0.1-1000	100	80	50	.8KVA	80 Lbs	7.00" H x 19" W x 24" D
SMX150	0.1-1000	150	120	52	1.0KVA	120 Lbs	7.00" H x 19" W x 24" D
SMX200	0.1-1000	200	150	53	1.5KVA	150 Lbs	2x 10.5" H x 19" W x 27" D
SMX250	0.1-1000	250	200	54	2.0KVA	170 Lbs	2x 10.5" H x 19" W x 27" D
SMX300	0.1-1000	300	250	55	2.5KVA	180 Lbs	2x 10.5" H x 19" W x 27" D
SMX400	0.1-1000	400	300	56	3.0KVA	200 Lbs	Rack Integrated
SMX500	0.1-1000	500	400	57	4.0KVA	250 Lbs	Rack Integrated
SMX1000	0.1-1000	1000	800	60	8.0KVA	750 Lbs	Rack Integrated

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Standard Features for IFI SMX Series Solid State Amplifiers

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.

* Alternate Prime Power (specify at time of order)

GPIB IEEE 488 & RS232 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.

Gain Control Local & Remote, 30dB range

RF Input/Output Connectors on the Front Panel, 118R for rear panel

Internal Systems Diagnostics & Status Indicators Total/Operate Elapsed Time Metering in hours

RF Safety Interlock

Forward/Reflected Power Indication simultaneously on Front Panel display

IFI SMX Series Solid State Amplifier Specifications						
Frequency 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 Required (Some are listed below)					
Input/output Impedance:	50 ohms					
RF Input/ Sample Connectors:	Type N Female, unless specified otherwise					
RF Output Connector:	Type N Female					
	Other connectors available by request or specification					
Input VSWR:	2.0:1					
Output VSWR:	2.5:1, 2.0:1 with full power					
Operating Temp:	0° to 50° C					
Non-operating Temp:	-40° to 70° C (50,000 feet max)					
Humidity:	95% without condensation					
Altitude:	10,000 feet					
Cooling System:	Air cooled, self contained					
Modulation:	AM,FM, Pulse					
Configuration:	Rack Mount as specified in Model Table, or Rack/Cabinet Integrated					
Spurious Outputs:	<-60 dBc nominal					
Harmonics:	-20dBc minimum @ Linear Power					

Standard Prime Powers:

100, 115, 120 VAC ±10% 50/60 Hz, single phase

220, 230, 240VAC $\pm 10\%$ 50/60 Hz, single phase

120/208 or 200/220/230/240 VAC $\pm 10\%$ 50/60 Hz, three phase Wye or Delta power is available

200/220/230/240VAC $\pm 10\%$ 50/60 Hz, three phase Wye or Delta power is available

Special Prime Powers other then listed are subject to availability

Some Available Options for IFI SMX Series Solid State Amplifiers				
Option 110-1E:	GPIB 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 a 19" rack mounting			
Option 118A:	RF Input On Front Output On Rear			
Option 118B:	RF Input On Rear Output On Front			

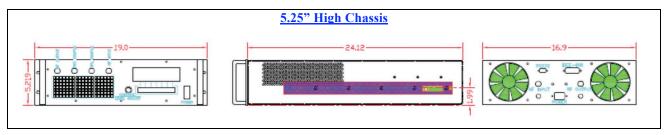
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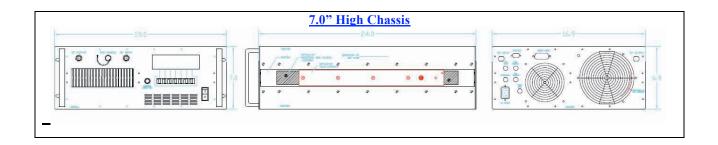
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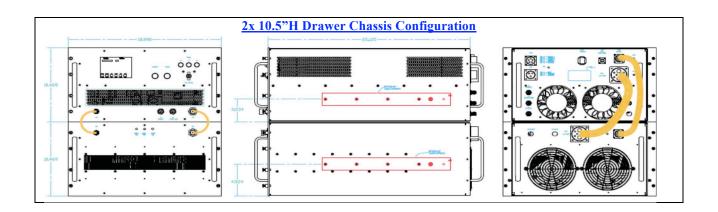
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Outline Configurations:







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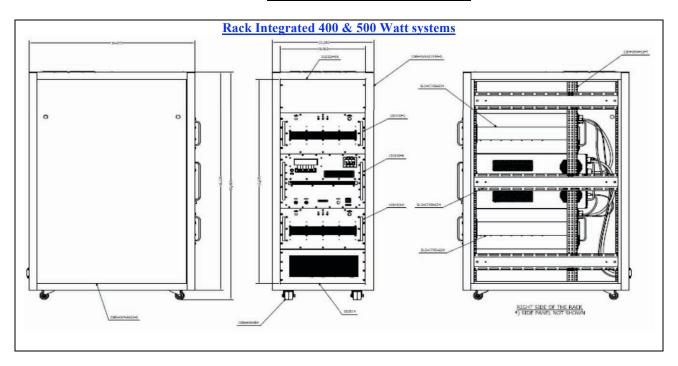
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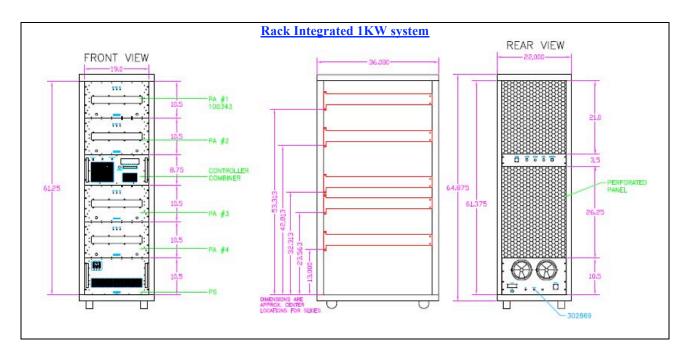
The Power Of Choice

SMX Series Solid State Amplifiers

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Rack Outline Configurations:





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