SMIV Solid State Amplifiers

400 – 1000 MHz • 10 Watts to 5000 Watts, Minimum Rated Power

Instruments for Industry, SMIV-Series Amplifiers provide outstanding RF performance. These products are available in a wide range of power levels from 10 watts to 5000 watts in the 400-1000MHz 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 heavy-duty individually shielded aluminum housings at 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 "SMIV-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
SMIV10	400-1000	10	10	40	.1KVA	25 Lbs	5.25" H x 19" W x 24" D
SMIV25	400-1000	25	25	44	.2KVA	28 Lbs	5.25" H x 19" W x 24" D
SMIV50	400-1000	50	50	47	.4KVA	32 Lbs	5.25" H x 19" W x 24" D
SMIV100	400-1000	100	80	50	.5KVA	36 Lbs	7.0" H x 19" W x 25" D
SMIV150	400-1000	150	120	52	.8KVA	40 Lbs	7.0" H x 19" W x 25" D
SMIV200	400-1000	200	160	53	1.4KVA	50 Lbs	7.0" H x 19" W x 25" D
SMIV250	400-1000	250	200	54	1.6KVA	60 Lbs	7.0" H x 19" W x 25" D
SMIV350	400-1000	350	250	56	3.0KVA	80 Lbs	8.75" H x 19" W x 24" D
SMIV500	400-1000	500	350	57	4.0KVA	120 Lbs	8.75" H x 19" W x 24" D
SMIV1000	400-1000	1000	800	60	8.0KVA	250 Lbs	2x 10.5" H x 19" W x 25" D
SMIV2000	400-1000	2000	1600	63	15.0KVA	500 Lbs	Rack Integrated
SMIV3000	400-1000	3000	2500	65	20.0KVA	700 Lbs	Rack Integrated
SMIV5000	400-1000	5000	4500	67	30.0KVA	1000 Lbs	Rack Integrated

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Standard Features for IFI SMIV Solid State Series 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 SMIV Solid State Series 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 up to 1KW amps, SC or 7/16 available, 7/16 2KW/3KW/5KW amps 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:

 $100, 115, 120 \text{ VAC} \pm 10\% 50/60 \text{ Hz}$, single phase

220, 230, 240VAC ±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 SMIV Solid State Series 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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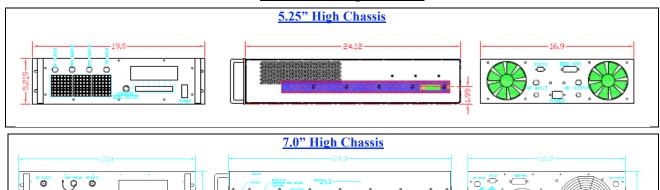
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AMPLIFIERS

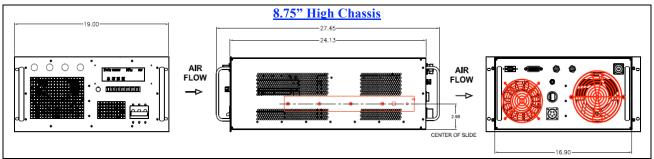
SMIV Solid State Amplifiers

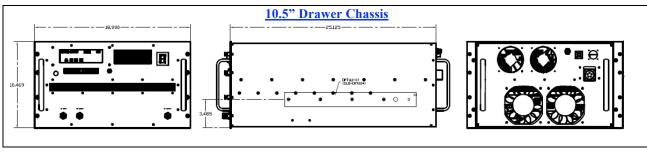
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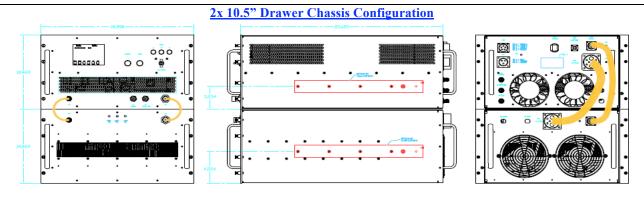
Outline Configurations:











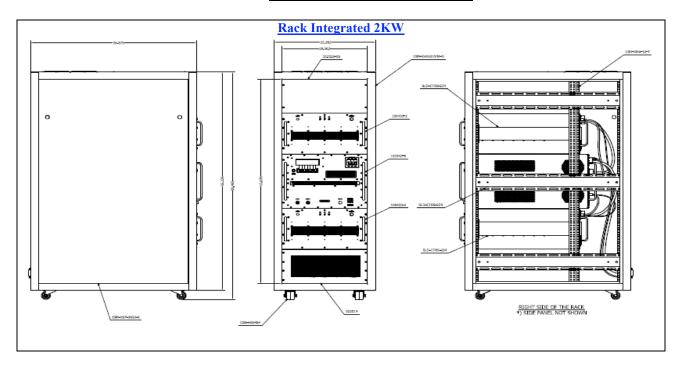
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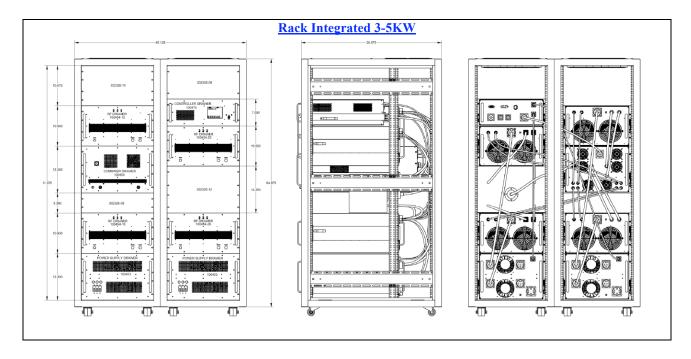
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Rack Outline Configurations:





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