



CMCL Solid State Amplifiers

20-1000MHz • 10 Watts to 1000 Watts, Minimum Rated Power

Instruments for Industry, CMCL-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 20 - 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 LD MOS 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 "CMCL-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.

<p>Features</p> <ul style="list-style-type: none"> • 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 		
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Models & General Specifications

Model Number	Frequency Range (MHz)	Rated Power (Watts) Minimum	P1dB Power Watts Minimum	Gain (dB) Minimum	KVA	Weight In Pounds	Size In Inches
CMCL10	20 – 1000MHz	10	10	40	.1KVA	25 Lbs	5.25" H x 19" W x 24" D
CMCL25	20 – 1000MHz	25	25	44	.2KVA	30 Lbs	5.25" H x 19" W x 24" D
CMCL50	20 – 1000MHz	50	40	47	.4KVA	35 Lbs	5.25" H x 19" W x 24" D
CMCL100	20 – 1000MHz	100	80	50	.5KVA	50 Lbs	7.00" H x 19" W x 24" D
CMCL150	20 – 1000MHz	150	120	52	.8KVA	75 Lbs	8.75" H x 19" W x 25.25" D
CMCL200	20 – 1000MHz	200	160	53	1.0KVA	80 Lbs	8.75" H x 19" W x 25.25" D
CMCL250	20 – 1000MHz	250	200	54	1.5KVA	95 Lbs	10.5" H x 19" W x 25.25" D
CMCL300	20 – 1000MHz	300	250	55	2.2KVA	110 Lbs	10.5" H x 19" W x 25.25" D
CMCL350	20 – 1000MHz	350	300	56	3.0KVA	150 Lbs	10.5" H x 19" W x 25.25" D
CMCL500	20 – 1000MHz	500	400	57	4.0KVA	300 Lbs	2x 10.5" H x 19" W x 25.25" D
CMCL750	20 – 1000MHz	750	600	59	6.0KVA	500 Lbs	Rack Integrated
CMCL1000	20 – 1000MHz	1000	800	60	8.0KVA	800 Lbs	Rack Integrated



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Standard Features for IFI CMCL 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 CMCL 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 Other connectors available by request or specification
Input VSWR:	2.0:1
Output VSWR:	2.5:1
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 ±10% 50/60 Hz, single phase
120/208 or 200/220/230/240VAC ±10% 50/60 Hz, three phase Wye or Delta power is available
200/220/230/240VAC ±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 CMCL 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

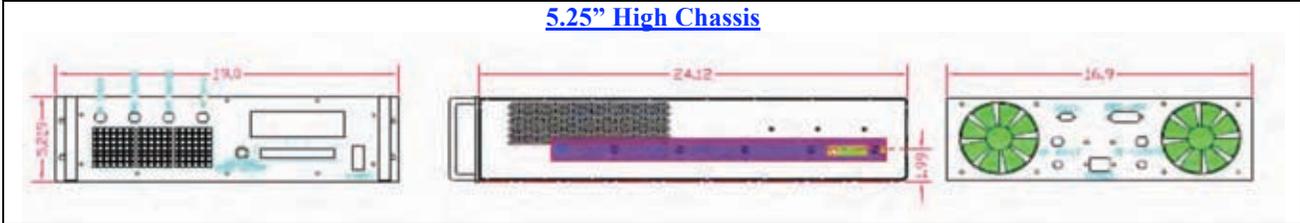


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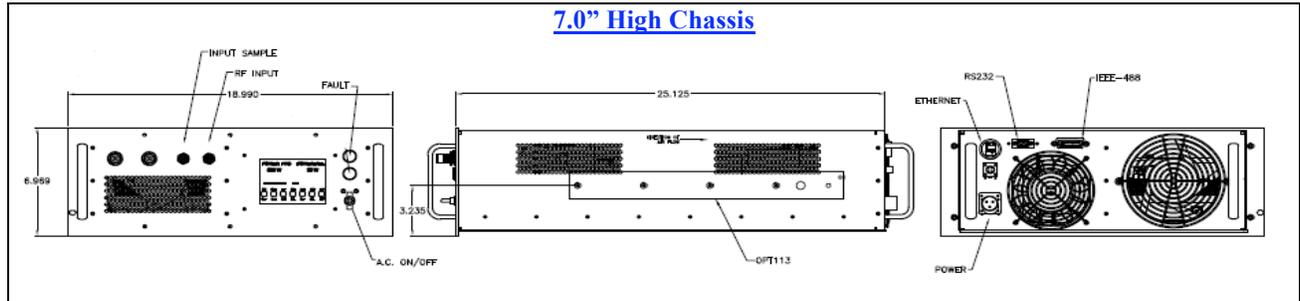
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Outline Configurations:

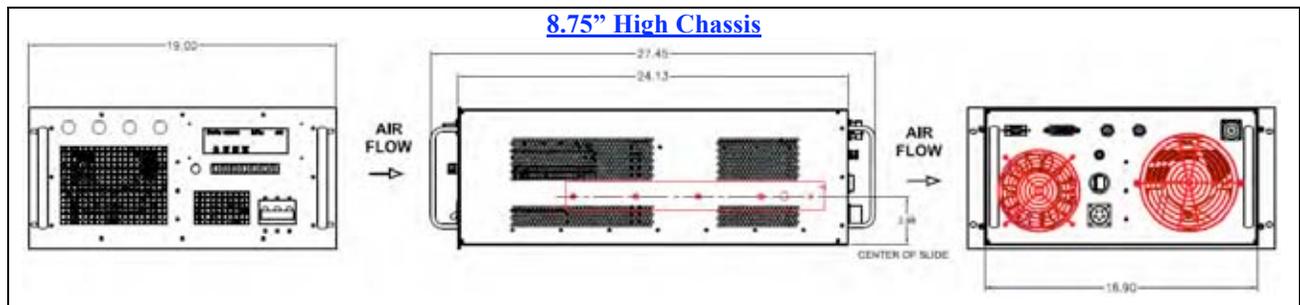
5.25" High Chassis



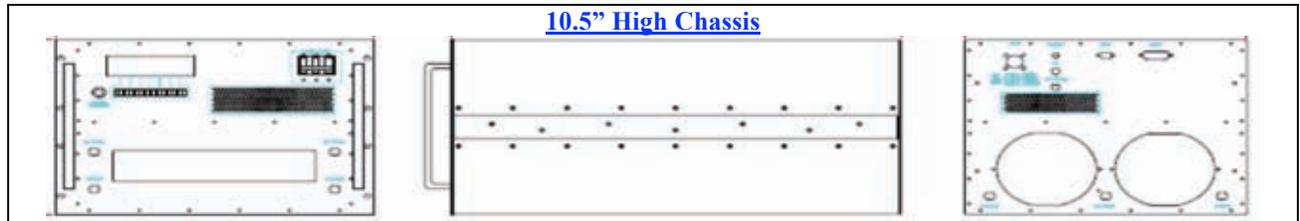
7.0" High Chassis



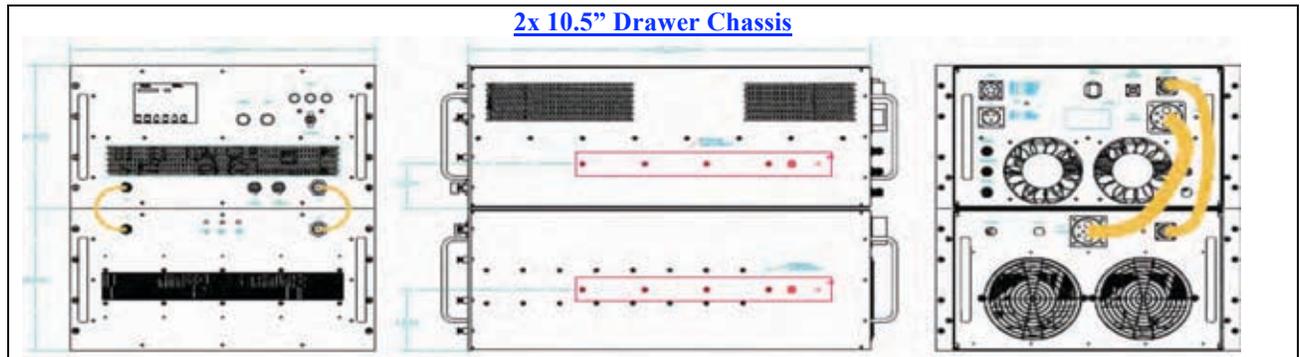
8.75" High Chassis



10.5" High Chassis



2x 10.5" Drawer Chassis





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Rack Outline Configurations:

Rack Integrated 750 Watts & 1KW

