

Solid State General Communication Power Amplifier

4058 - GCS4P4RXU
1750 - 1850MHz / 2000Watts

PRELIMINARY INFORMATION

The GCS4P4RXU (SKU # 4058) is suitable for L-Band high power linear applications. This amplifier utilizes high power Push-Pull devices that provide high gain, wide dynamic range, low distortions and good linearity. Exceptional performance, long term reliability and high efficiency are achieved by employing advanced broadband RF matching networks and combining techniques, built in high quality power supply, EMI/RFI filters, machined housings and all qualified components. The amplifier is constructed of three modular drawers all housed in a modern and rugged rack cabinet. Each LRU includes a universal voltage, single phase, power supply and a built in forced air-cooling system. Empower RF's ISO9001 Quality Assurance Program assures consistent performance and the highest reliability.

- Solid-state class AB linear design
- Instantaneous bandwidth
- Standard front panel manual gain adjust
- Optional Touchscreen LCD for local and remote interface
- Suitable for all modulations standards
- 50 Ohm Input/Output impedance
- High reliability and ruggedness



ELECTRICAL SPECIFICATIONS @ 380VAC, 3 ϕ , 25°C, 50 Ω System

Characteristics	Rating	Min	Typ	Max	Units
Frequency Response	BW	1750		1850	MHz
Power Output CW	P _{SAT}	2000			Watt
Power Output @ 1dB G.C.P	P _{1dB}	1200			Watt
Power Gain @ P1dB G.C.P	G _{1dB}	62			dB
Input Power for Rated Pout	P _{IN}		0		dBm
Gain Flatness	Δ G			\pm 1.0	dB
Gain Adjustment Range	FGA	25	30		dB
Input/Output Return Loss	S11/S22			-10	dB
Harmonics @ rated 1dB G.C.P	H		-40		dBc
Noise Figure	NF			10	dB
Third Order Intercept Point 2-tone IMD @ 57dBm/Tone, Δ = 0.5MHz	IP3		+75		dBm
Spurious Signals	Spur		-70	-60	dBc
Supply Voltage - 3 ϕ , 220VAC/Phase	VAC		380		Volt
Power Consumption	P _D			14000	Watt

MECHANICAL SPECIFICATIONS

Dimensions W x H x D/ Weight with enclosure	TBD	Typ
Dimensions W x H x D / Weight w/o enclosure	19"x52.5"x22" / 500lb.	Typ
RF Connectors FCN or RCN option	Input: Type-N female, Output: 7/16 female	
Cooling	Built in forced-air system	

ENVIRONMENTAL SPECIFICATIONS

Operating Temperature	T _c	0		50	°C
Non-operating Temperature	T _{stg}	-40		+85	°C
Relative Humidity w/o condensation	RH	95			%
Altitude	Alt	10,000	30,000		Feet
Shock and Vibration	SH / VI		Airborne		-

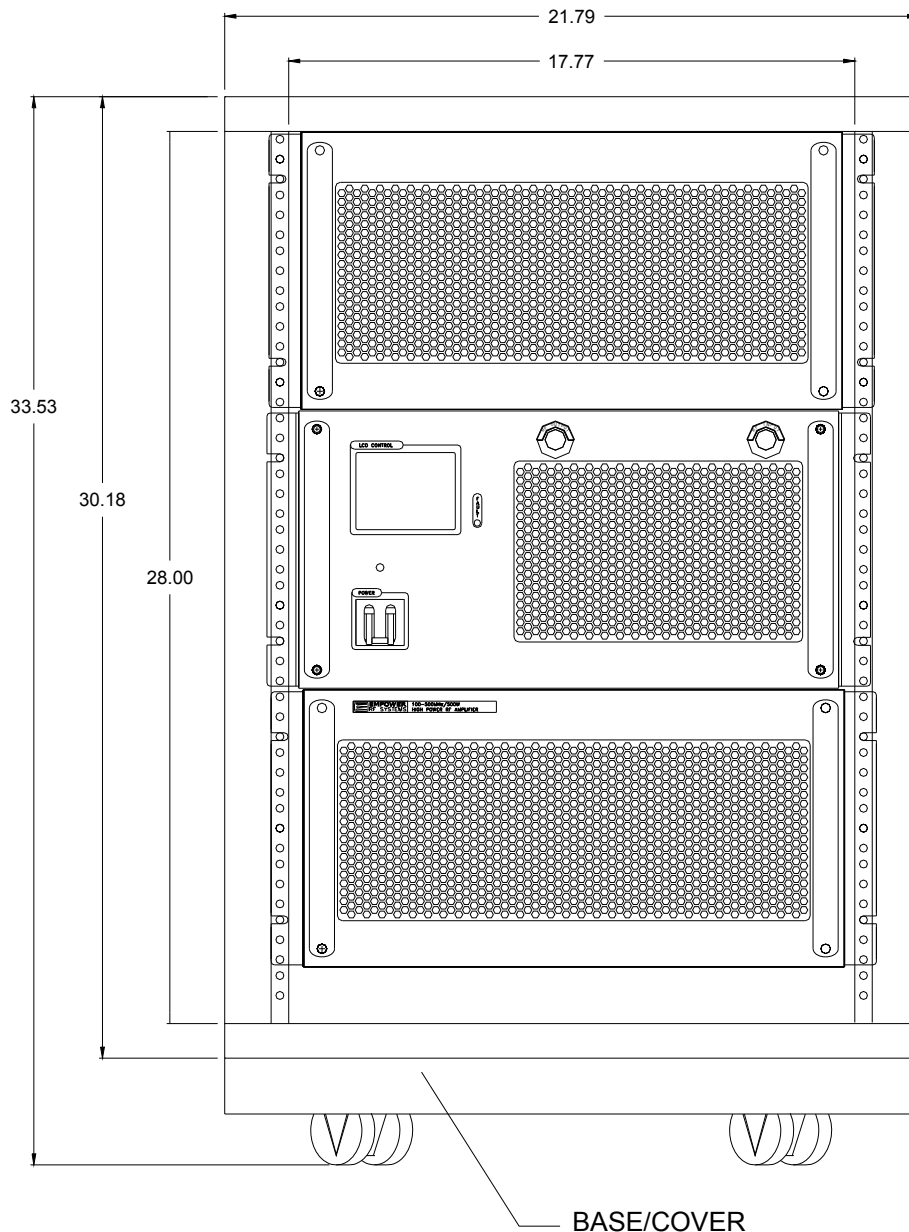
PROTECTIONS

Input Overdrive		+10dBm			Max
Load VSWR @ rated P1dB G.C.P		5:1 @ any angle & magnitude			Nom
Thermal Overload		85°C shutdown			Max

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AVAILABLE OPTIONS (Refer to www.empowerrf.com for detailed available options)

Option	Number	Description	Price
FGA	061	Front panel manual gain adjustment 10 turns	Standard
LCD	062	Local: Front panel touch screen LCD controller including Fwd/Rev Power indication (dB or Watt scale), Gain Adjustment, ALC Fast/Slow & On/Off, Standby mode, Fault indication. Remote: Rear panel HPIB IEEE-488.2 or full duplex RS232 serial interface. Note: Output Power is lowered by 0.5 - 0.75dB with this option.	Call
FCN	051	Front Panel Type-N, SC or 7/16	N/C
RCN	052	Rear Panel Type-N, SC or 7/16	N/C

SYSTEM OUTLINE DRAWING - FRONT VIEW


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SYSTEM OUTLINE DRAWING – SIDE VIEW

