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## MODEL GRF4028

1.75 - 1.85 GHz

500 WATTS

LINEAR POWER RF SYSTEM

### Solid State Band-Specific High Power RF System

The GRF4028 is a system comprising of a high power amplifier (HPA), OPHIR<sub>RF</sub> part number 5200463, and a remote control unit (RCU), part number 5200464. The system outputs up to 500 Watts of RF power, across the 1.75 – 1.85 GHz frequency band.

Due to robust engineering and employment of the most advanced devices and components, this system achieves high efficiency operation with proven reliability. Like all OPHIR<sub>RF</sub> products, the GRF4028 comes with an extended

	Parameter	Specifications @ 25° C
<b>Electrical</b>		
1	Frequency Range	1.75 – 1.85 GHz
2	Saturated Output Power	500 Watts min
3	Power Output @ 1dB Comp.	400 Watts min
4	Power Gain (0 dBm)	+57 dB min
5	Power Gain Flatness (0 dBm)	≤ 0.25 dB over 4 MHz bandwidth
6	Small Signal Gain Variation	1.5 dB max
7	Input/Output VSWR	1.8:1 max
8	Harmonic Distortion	-6 dBc max
9	Spurious Signals	-60 dBc max
10	Input/Output Impedance	50 Ohms nominal
11	AC Power - HPA - RCU	200 – 240 VAC, 60 Hz, 3 phase 115 VAC ± 10%, 60 Hz, 1 phase
12	AC Power Consumption - HPA - RCU	4000 Watts max 100 Watts max
13	RF Input Overdrive	+13 dBm max for 100 seconds
14	Class of Operation	AB
<b>Mechanical</b>		
15	Dimensions - HPA - RCU	19" x 8.75" x 22" 19" x 3.5" x 22"
16	Weight - HPA - RCU	85 lbs. max 30 lbs. max
17	Grounding	Chassis
18	Cooling	Internal Forced Air
<b>Environmental</b>		
19	Operating Temperature	14° C to +40° C
20	Non-Operating Temperature	-30° C to +85° C
21	Operating Humidity	20% to 70% Non-condensing

### SYSTEM FEATURES

- ◇ Temperature Protection (Shutdown @ 75 °C)
- ◇ RF Input Overdrive
- ◇ RF ON / RF Standby
- ◇ Cover Interlock Protection
- ◇ Radiation Warning System (RWS)
- ◇ High VSWR alarm

### FRONT PANEL CONTROLS and INDICATORS

- ◇ Local and Remote indicators on both HPA and RCU
- ◇ RF ON / RF STBY indicators on both HPA and RCU
- ◇ Antenna/Dummy load indicator and pushbutton on RCU
- ◇ Radiation Warning System indicators on RCU
- ◇ Lamp test pushbutton on RCU
- ◇ Summary Fault indicators on both HPA and RCU

#### Cable Connections (HPA):

RF input / output (Type N / 7/8" EA Flange), RF Output Sample Port (Type N), Coax Switch Interface, Radiation Warning System (RWS) interface, IEEE-488 interface, RCU interface, and 3-phase AC power connector are located at rear of the HPA.

#### Cable Connections (RCU):

HPA interface, Radiation Switch Assembly (RSA), and AC power connector located at rear of RCU.

***Ophir RF Proprietary Information***