SPECIFICATIONS

Frequency Range	:	LA500V, 10 - 100 MHz, broadband LA500VM, 108-118 MHz
Power Output	:	500 Watt CW or pulse minimum
Power Gain	:	57 dB typical
Input Power	:	1 mW typical
Gain Control	:	20 dB minimum
Gain Flatness	:	± 2.0 dB maximum unleveled; ± .5 dB leveled
ALC	:	± 0.5 dB for 10 dB input change
Input/Output Impedance	:	50 Ohm
Duty Cycle	:	100%
Spurious Outputs	:	-70 dBc (V), -90 dBc (VM) minimum
Harmonics	:	LA500V, -13 dBc minimum LA500VM, -45 dBc minimum
VSWR Tolerance	:	withstands infinite VSWR without shutdown.
Protection	:	VSWR, over-temperature, overdrive – see below, **"Special Features".**
Stability	:	unconditionally stable
Class of Operation	:	Class "A" linear
Operation Temperature	:	-10 to 40 °C
Connectors	:	type-N female
Cooling	:	forced air, tube-axial fans.
Front Panel Meter	:	0-500 Watt FS, top scale. % reflected power SET point, bottom scale.
Remote Control	:	provisions standard via 25-pin D-subminiature connector. Optional integral IEEE488.2/RS232 Interface, see below.
Controls	:	[AC LINE] ON/OFF [RF CTRL] ON/OFF (blanking) [METER] FWD/REFL [ACL] FAST/SLOW (Autom. Level Control) [VSWR] RESET MAN/AUTO RF GAIN, ALC

Figure 1-3, Specifications, page 1 of 4

SPECIFICATIONS contd.

Indicators	:	SYSTEM, BLANKING, [METER]MODE, [ALC] MODE, VSWR, TEMP, REMOTE ACTIVE
Primary Power Required	:	95 to 265 V_{AC}, 47-63 Hz, 2.0 kVA max.
Size H x W x D	:	PS/PC5000HC - 5¼X19X17½ in.; 13X48X45 cm. AMP500V(M) - 8¾X19X21½ in.; 22X48X55 cm.
Weight	:	PS/PC5000HC - 36 lb.; 16.4 kg. AMP500V(M) - 74 lb.; 33.6 kg. Cables - 6 lb.; 2.7 kg.
Construction	:	two, 19-inch rack-mount cabinets. Formed, aluminum construction with removable front, rear and side panels. Front panel controls and indicators are PCB mounted, except gain and ALC controls and RF connectors. All sub-assemblies are modular and removable.
Color	:	**Front panels** - Dominant color - light gray, Graphics background color - medium bluish-gray Graphics and text color - dark blue **Cabinet and covers** - clear, chemically treated aluminum.

Special Features

Temperature Protection	:	Amplifier module(s) protected by temperature sense switches. **Indication**: blinking, red LED *off – safe *red – temperature ≥ 160 °F, amplifier shut down as indicated by TEMP and BLANKING LEDS.
Overdrive Protection	:	**Indication**: ALC indicator, red LED *off – save *red – with ALC control in the OFF, full clockwise position, the system is being overdriven. Reduce input signal to safe level.

Figure 1-3, Specifications, page 2 of 4

SPECIFICATIONS contd.

VSWR protection : The amplifier is protected against all load mismatch conditions by a proportional power sensing/limiting control circuit. This circuit automatically limits the maximum reflected power to a level equivalent to that realized with rated power output when the output VSWR ratio exceeds a preset level; 2:1 for most models. The amplifier may also be programmed to shut down when this ratio is exceeded.

Indication: red LED

*off – safe
*red – reflected power exceeding the pre-set level or amplifier has shut down if so programmed.

Control: [VSWR][RESET]AUTO/MAN alternate action push button switch.

AUTO position: automatic reflected power/output power limiting.
MAN position: amplifier shuts down when reflected power exceeds set limit. Button must be depressed twice to reset system.

Automatic Level Control : The ALC allows the amplifier to be adjusted for a predetermined output level to be maintained while the input may vary by as much as 20 dB above the minimum input required to obtain the desired output. The response time of the ALC may be selected to be fast or slow to suit the particular application. For modulated signals the slow mode should be selected; fast for CW. Not recommended for pulse operation.

Indication: red LED

*off – no ALC action
*red – ALC active. If the indicator is lit with the ALC control in the full clockwise position, ALC OFF, the amplifier is being overdriven.

Controls:

[ALC]-[MODE]-FAST/SLOW alternate action push button switch.
[RF OUTPUT POWER]-LEVEL SET linear potentiometer marked ALC OFF in full clockwise position

Figure 1-3, Specifications, page 3 of 4

SPECIFICATIONS contd.

Input Blanking/Energy Conservation	:	Input to the amplifier may be blanked by push-button operation. This shuts down the current drain of the amplifier to a minimal amount required for the control circuitry. **Indication**: red LED *off – input active *red – input blanked **Control:** [RF CONTROL]BLANKING on/off. Alternate action push-button; in = blanked.
RF Power Meter	:	The amplifier has a front panel-mounted, dual scale, analog power meter, calibrated in WATTS FORWARD (top scale) and REFLECTED power (bottom scale). **Control:** [OUTPUT LEVEL][MODE]FWD/REF, alternate action push-button switch; in = forward power.
Remote Control	:	Provisions standard via 25-pin D-subminiature connector. Compatible with external IF488A IEEE488.2/RS232 Interface Unit. Optional internal IEEE488.2/RS232 Interface Module. **Indication**: yellow LED. May be lit from remote control panel to indicate that unit is under remote control. Local RF gain and ALC are disabled under hard-wired remote control as well as VSWR mode selection, ALC mode selection and blanking.

Figure 1-3, Specifications, page 4 of 4

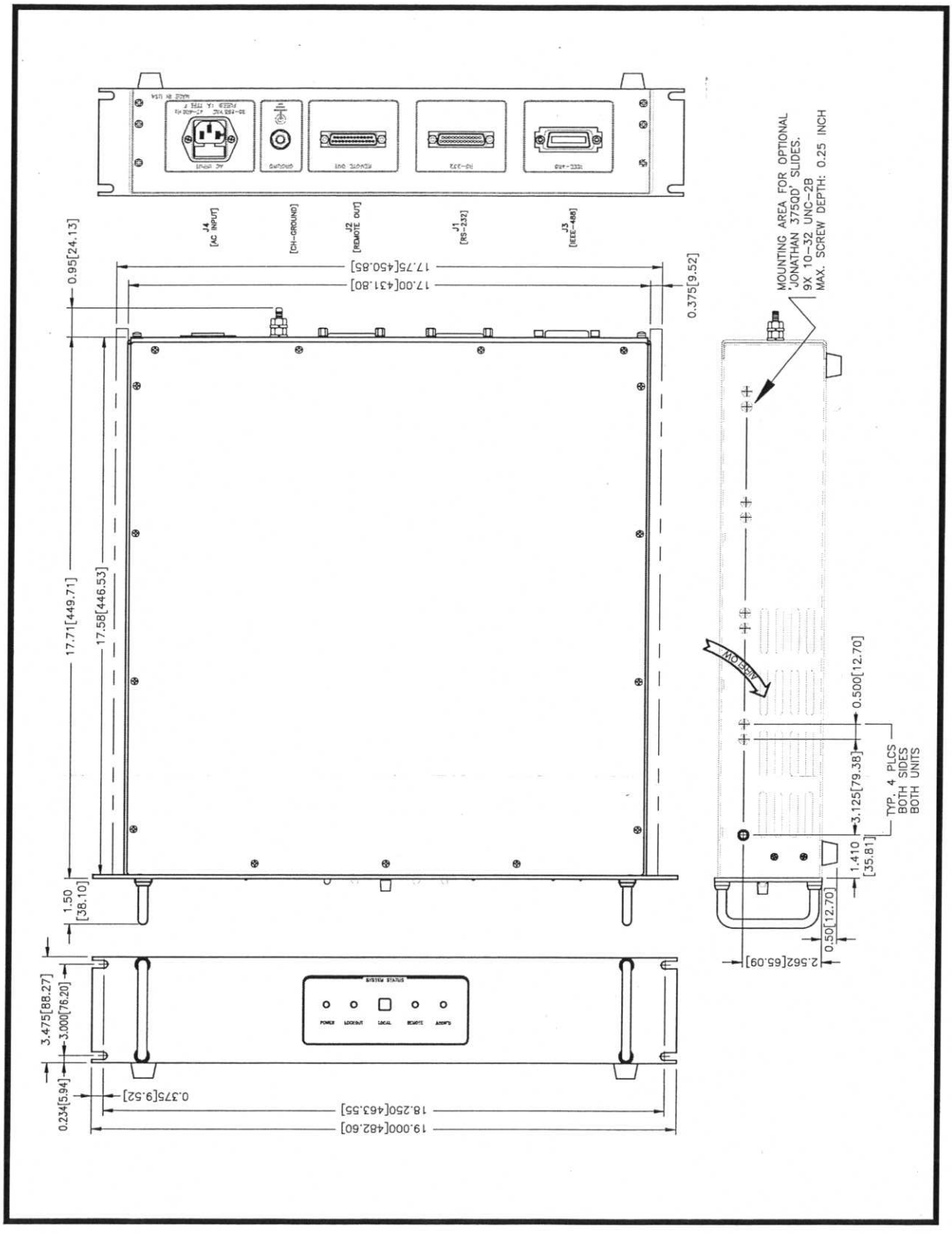

Figure 1-4, IF488, GPIB Interface Unit