



## STANDARD AMPLIFIER PARALLEL INTERFACE SPECIFICATION

Connector type: 25-pin D Female at rear of amplifier

PIN NUMBER	FUNCTION	DESCRIPTION	
1	DC POWER	Indicates that the unit has valid DC supply rails.	Digital status output. 0V=DC not OK, +5V=DC OK. The output resistance of this signal is 470 ohms.
2	RF POWER	Indicates that the unit's output power is greater than approximately 1% of the nominal full output power.	Digital status output. 0V=RF Power<1%, +5V=RF Power>1%. The output resistance of this signal is 470 ohms.
3	OVERTEMP	Indicates if the unit is in an over-temperature condition.	Digital status output. 0V=Not Overtemp, +5V=Overtemp. The output resistance of this signal is 470 ohms.
4	OVER DUTY	Indicates if the unit is in an over-duty or over maximum pulse width condition. Over-duty means that the chosen combination of GATE duty-cycle and RF input level exceeds the preset limits. This applies to pulsed amplifiers only.	Digital status output. 0V=Not Overduty, +5V=Overduty The output resistance of this signal is 470 ohms.
5	GAIN CONTROL	A control signal of 0 to +5V applied to this pin controls the gain of the amplifier over approximately 10dB range.	Analogue control input. 0V = maximum gain. +5V = minimum gain. For remote manual gain control, a 100-ohm potentiometer may be connected between the +5V AUX, 0V AUX, and GAIN CONTROL pins (wiper to the GAIN CONTROL pin).
6	FOLDBACK	This applies to CW amplifiers with gain foldback protection. When the load SWR exceeds a preset limit the amplifier gain is reduced and the FOLDBACK pin goes high.	Digital status output. 0V=Not in foldback, +5V=in foldback. The output resistance of this signal is 470 ohms.
7	VFWD	This is an analogue DC voltage representing a sample of the forward voltage at the output of the amplifier. Note that VFWD has an output impedance of 470-ohms, so take care not to load it down.	Analogue status output. 0V = No detected forward power 2.5V=> Full rated power (approximately). Output resistance approx 470 ohms.
8	VREFL	This is an analogue DC voltage representing a sample of the reflected voltage at the output of	Analog Status Output 0V = No detected reflected power

		the amplifier. Note that VFWD has an output impedance of 470-ohms, so take care not to load it down.	0.8V = Full rated power into a 2:1 load mismatch (approximately). Output resistance approx 470 ohms.
9	FAULT	This is the logical OR of the status conditions DUTYLIMIT, OVERTEMP, MISMATCH. The output resistance of this signal is 470 ohms.	Digital status output. 0V=Not Fault, +5V=Fault
10	TRG/GT SELECT	Selects between TRIGGER mode and GATE mode for amplifiers with pulse shape generation capability.  GATE mode (+5V or open) puts the amplifier in linear mode to enable external application of amplitude and phase modulation. The amplifier is biased on while the GATE/TRIGGER input is high.  TRIGGER mode (0V) puts the amplifier in shape generation mode, where the positive edge of the GATE/TRIGGER input is used to start the internal shape and phase modulation system.  <b>Implemented on selected amplifiers only.</b>	Digital control input. 0V=> Trigger mode. +5V or open=> Gate mode. Input resistance is 10K ohms.
11	SHUTDOWN STATUS	SHUTDOWN STATUS provides readback of the SHUTDOWN control applied to pin 19, for safety interlock use.	Digital status output. 0V= Shutdown not asserted +5V=> Shutdown asserted. The output resistance of this signal is 470 ohms.
12	NOT USED		
13	NOT USED		
14	ENABLE	This indicates whether the unit has been Enabled such that it will respond to applied Gate and RF input signals.	Digital status output. 0V=Standby, +5V=Enabled The output resistance of this signal is 470 ohms.
15	MISMATCH	This indicates whether the unit is experiencing a load mismatch condition.	Digital status output. 0V=Not Mismatched, +5V=Mismatched. The output resistance of this signal is 470 ohms.
16	PTT IN	PTT is a "pull-down" version of GATE. The two signals are "ORed" internally.	Digital control input. Pull down to 0V AUX (pin 17) to transmit.
17	GND	This is a 0V DC return for the +5V AUX and status interface signals. Interface signals are referenced to this pin.	Reference Earth



18	+5V AUX	This is a +5V DC supply for use in external interface circuitry.	Aux. power supply output. ~4.7V, 100mA max.
19	SHUTDOWN	SHUTDOWN is used to remotely prevent the amplifier from transmitting.	Digital Control Input. Pull down to 0V AUX (pin 17) to disable the amplifier. Input resistance = 1k ohm pullup.
20	GATE IN	This is an alternative input to the coaxial GATE input at the rear of the amplifier. The two inputs are connected together internally.	Digital Control Input. Input resistance = 10k ohm pulldown.
21	GND	Same as pin 17	
22	PSU ADJUST	This input may be pulled down to 0V AUX to reduce the main supply rail. Implemented on selected amplifiers to allow lower heat dissipation in CW mode.	Digital control input. High or open = default full-power pulsed operation. Low or pulled down = low-power CW operation. Input impedance = 1k ohm pullup.
23	NOT USED		
24	NOT USED		
25	NOT USED		