

PIN DEFINITIONS

The AC4790 has a simple interface that allows OEM Host communications with the transceiver. The table below shows the connector pin numbers and associated functions. The I/O direction is with respect to the transceiver. All outputs are 3.3VDC levels and inputs are 5VDC TTL (with the exception of AC4790-1x1 and AC4790-1000 transceivers which have 3.3V inputs). All inputs are weakly pulled High and may be left floating during normal operation (with the exceptions listed for the AC4790-1x1).

Table 1 - Pin Definitions

Module Pin	1x1 Pin	Type	Signal Name	Function
1	4	O	GO0	Session status if Protocol Status is enabled. Otherwise, generic output.
2	6	O	TXD	Transmitted data out of the transceiver
		I/O	RS485 A (True) ¹	Non-inverted RS-485 representation of serial data
3	7	I	RXD	Data input to the transceiver
		I/O	RS485 B (Invert) ¹	Mirror image of RS-485 A
4	5 ²		GI0	Generic Input pin
5	3	GND	GND	Signal Ground
6		O	Do Not Connect	Has internal connection, for AeroComm use only .
7	9	O	$\overline{\text{CTS}}$	Clear to Send – Active Low when the transceiver is ready to accept data for transmission.
8	10 ²	I	$\overline{\text{RTS}}$	Request to Send – When enabled in EEPROM, the OEM Host can take this High when it is not ready to accept data from the transceiver. NOTE: Keeping RTS High for too long can cause data loss.
9	19	O	GO1	Received Acknowledge status pin if Protocol Status is enabled. Otherwise, generic output.
10	2	PWR	VCC1	AC4790-1x1: 3.3V, $\pm 50\text{mV}$ ripple AC4790-200: 3.3 – 5.5V, $\pm 50\text{mV}$ ripple (Pin 10 is internally connected to Pin 11) AC4790-1000: 3.3 – 5.5V, $\pm 50\text{mV}$ ripple
11	11	PWR	VCC2	AC4790-1x1: 3.3V, $\pm 50\text{mV}$ ripple AC4790-200: 3.3 – 5.5V, $\pm 50\text{mV}$ ripple (Pin 11 is internally connected to Pin 10) AC4790-1000: 3.3V $\pm 3\%$, $\pm 100\text{mV}$ ripple
12	23	I	$\overline{\text{Test}}$	Test Mode – When pulled logic Low and then applying power or resetting, the transceiver's serial interface is forced to a 9600, 8-N-1 rate. To exit, the transceiver must be reset or power-cycled with Test Mode logic High.
13	12	O	RSSI	Received Signal Strength - An analog output giving an instantaneous indication of received signal strength. Only valid while in Receive Mode.
14	21 ²	I	GI1	Generic Input pin
15	16	I	UP_RESET	RESET – Controlled by the AC4790 for power-on reset if left unconnected. After a stable power-on reset, a logic High pulse will reset the transceiver.
16	13	GND	GND	Signal Ground
17	17	I	$\overline{\text{Command/Data}}$	When logic Low, the transceiver interprets OEM Host data as command data. When logic High, the transceiver interprets OEM Host data as transmit data.
18	15 ³	I	AD In	10 bit Analog Data Input
19	1,8,20, 24-28	N/C	Do Not Connect	Has internal connection, for AeroComm use only .
20	18	O	Session Status	When logic Low, the transceiver is in Session
N/A	14	RF	RF Port	RF Interface
N/A	22	I	Reset	Active Low version of UP_RESET. If RESET is used, UP_RESET should be left floating and if UP_RESET is used, RESET should be left floating.

I = Input to the transceiver

O = Output from the transceiver

¹ When ordered with a RS-485 interface (not available on the AC4790-1x1).

² Must be tied to VCC or GND if not used. Should never be permitted to float.

³ If used, requires a shunt 0.1 μF capacitor at pin 15 followed by a series 1k Ω resistor.