



Jupiter 30 / 20

Technical Note

New Adaptor Boards

This technical note describes changes to adaptor boards due to RoHS requirements.

Affected products

- TU20-D100-001 - RoHS compliant Jupiter 20 Standard Adaptor Board
- TU20-D100-101 - RoHS compliant Jupiter 20 Xtrac Adaptor Board
- TU20-D120-201 - RoHS compliant Jupiter 20 DR Adaptor Board
- AA003027-G - RoHS compliant Jupiter 30 Standard Adaptor Board

Due to recent changes required by the EU RoHS directive, the Jupiter 20 and Jupiter 30 series adaptor boards form factor is changing.

All future adaptor boards for the Jupiter 20 and Jupiter 30 series will utilise a 2.54 mm pitch 10 x 2, 20-way connector (J2) (see Figure 2). Previously, a 2.0 mm pitch type (J1) connector was used (see Figure 1).

A further difference is that the header is connected to the underside of the adaptor board (see Figure 2), previously it was on top (see Figure 1) (see Note 2). This new header will allow the adaptor board to connect directly into Navman's new Jupiter Series GPS Development Unit and provide access to the full range of GPIOs to the adaptor board. The previous 2 mm pitch header did not have electrical connection to all GPIOs (see Table 1).

The rationale behind this change has been driven by the requirement to produce a RoHS compliant GPS Development Unit that allows access to critical GPIO functions e.g. the WAKEUP function on Jupiter 30.



Figure 1: J1 - Old style 2.0 mm Connector



Figure 2: New style 2.54 mm Connector

The new adaptor boards will not be compatible with the old GPS Development Unit as they do not have a 2.54 mm socket.

The new GPS Development Unit (see Note 1) provides the old style connector to allow the boards to be connected via a 2.0 mm pitch connector. A standard one-to-one ribbon cable (not provided) is required to interface between the new GPS Development Unit and the old style adaptor board.

Notes:

1. The new RoHS compliant GPS Development Units will be available from the end of Aug 06.
2. New adaptor boards will be available from the end of July 06.

New header pin number (J2)	Jupiter 20	Jupiter 30	Old header pin number (J1)
1	ACTIVE ANT PWR	ACTIVE ANT PWR	1
2	VCC_RF	VCC_RF	-
3	V_BATT	V_BATT	3
4	VDD	VDD	4
5	N_RESET	N_RESET	5
6	GPIO3/GYRO IN	GPIO3/GYRO IN	6
7	GPIO15/FR	GPIO15/FR	7
8	BOOT SELECT	BOOT SELECT	8
9	GPIO1/W TICKS	GPIO1/W TICKS	9
10	RF_ON	RF_ON	-
-	GND	GND	10
11	TXA	TXA	11
12	RXA	RXA	12
13	GPIO5/SDI	GPIO4	-
-	GND	GND	13
14	TXB	TXB	14
15	RXB	RXB	15
16	GPIO7/SCK	WAKEUP	-
17	GND	GND	16
18	GPIO6/SDO	GPIO13	-
-	GND	GND	17
-	GND	GND	18
19	TIME MARK PULSE	TIME MARK PULSE	19
20	N_GPS FIX	N_GPS FIX/ GPIO10	-

Table 1: New versus old pin functionality

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