



# Portable Tester Headline Specification

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Revision Table					
Version	2	Changes	3	Responsible	4
1.0	2a	Initial Release	3a	John Robertson	4a
1.1	2b	All pages. New version of tester	3b	John Robertson	4b
1.2	2c	Cosmetic	3c	Peter Hartnett	4c
	2d		3d		4d
	2e		3e		4e
	2f		3f		4f
	2g		3g		4g
	2h		3h		4h
	2i		3i		4i
	2j		3j		4j
	2k		3k		4k



## Portable tester Headline specification

September 2003



### Controller

Type	Motorola MC68376 with 4MB of flash memory
Features	CAN interface
	16 TPU channels
	8 CTM channels
	16 A/D channels

### Power supply

Type	Switch mode
Rating	5.5V – 26V
	15A
Accuracy	2% of set voltage

### Analogue outputs

Type	DAC 12 Bit
Number	64
Output drive	$\pm 75\text{mA}$
Range	0 – 20V
Accuracy	$< 1\% \pm 20\text{mV}$
Impedance	Open, 4k99, 100K, S/C



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### Load module

Number of channels	64, can be GND, Vbatt or bridge connected
Type	Resistor matrix based R, 2R, 4R sequence currently based on 10 values to a maximum current of 0.5mA to 15A @ 16V
Current capability	16A
H Bridge capability	up to 8 channels
Resistive loads	500uA steps to 15A at 16V
Inductive loads	0, 2.1, 2.9, 3.1, 3.3, 3.6, 4.0, 4.4, 5.0, 5.7, 6.7, 8.0, 10, 13.3, 20, 40 mH
Short circuit tests	To Vbatt or GND

### Measurement module

A/D reference	5V $\pm$ 10mV
A/D resolution	10 bit
A/D conversion accuracy	2.5 counts
Analogue input range	0 - 25V 1%
Current measurement range	0 - 15A in one range 1.5% $\pm$ 50mA
AC measurement	0 - 5 V 5mV resolution, 3% 10 - 100 kHz. Average detector
Period measurement	0 - 0.5 Sec. 8us resolution
Ambient pressure	1.5% accuracy
HV clamp	180V through 23k5.
Negative voltage	0 to -5V. 1%

### LAF and Hall

LAF	Linear O2 sensor simulation. One source switched to two channels
HALL	6 open drain frequency outputs

### Communications

Available buses / lines	RS232
	Kline x 2
	Logic level separate Tx/Rx
	CAN Std & Extended up to 1Mbit rate