

Title: Calibration Of W&G Digital Level Meter Type PMP20

Scope

Work Instruction for the internal calibration of W & G Digital Level Meter Type PMP20. To be used in the absence of a manufacturers calibration instruction

Preparation

Calibration must be carried out using Category A Master instruments as required.

Equipment required;-

1. Solartron Model 7065 Microprocessor Voltmeter.
2. Levell Decade Oscillator Type TG66A.
3. Datron 9100 Calibrator.

Method

1.1.1 All calibration results must be entered on the results sheets (see appendix A)

1.1.2 Note the lab temperature and R.H. and enter on results sheet.

1.1.3 Carry out test 1, which requires no additional test equipment.

1.1.4 Carry out tests 2 – 17 using the Levell Decade Oscillator as a signal source and the Solartron Microprocessor Voltmeter with dBm programme.

1.1.5 Carry out tests 18 and 19 using the Datron 9100 calibrator.

1.1.6 Complete results sheet header and enter Pass / Fail

- All records must be kept for audit purposes

References

Appendix A Calibration of W & G Digital Level Meter Type PMP20

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Appendix A

Calibration of W&G Digital Level Meter Type PMP20

Model Serial No

Date Result

Lab Temp / RH Operator

User Location Certificate No

Accuracies quoted are from manufacturer's specifications or relevant British Standard

Preliminary Adjustment

Test 1

Switch on, operate the "CAL 00.0" button and adjust the trimmer for 00.0db.
For maximum accuracy the precise calibration point is given by the change of polarity symbol.

Does the UUT adjust to 00.0? Pass / Fail

Level Calibration

Accuracies:

700 Hz to 1100Hz, -12 to +5dBm $\pm$ 0.15dB, -70 to +10dBm $\pm$ 0.2dB

200Hz to 4k Hz, -70 to + 10dBm $\pm$ 0.25dB.

40Hz to 16k Hz, -70 to +10dBm $\pm$ 0.35dB.

30Hz to 20k Hz, -70 to + 10dBm $\pm$ 0.5dB

Test	Frequency Hz	UUT Level dBm	Actual Level dBm	Allowed Limits dBm	Result
2	1k	+ 5		+ 4.85 to + 5.15	Pass / Fail
3	1k	+ 10		+ 9.8 to + 10.2	Pass / Fail
4	1k	- 12		- 11.85 to - 12.15	Pass / Fail
5	1k	- 60		- 59.8 to - 60.2	Pass / Fail
6	200	+ 10		+ 9.75 to - 10.25	Pass / Fail
7	200	- 60		- 59.75 to - 60.25	Pass / Fail
8	4k	+ 10		+ 9.65 to +10.35	Pass / Fail
9	4k	- 60		- 59.65 to - 60.35	Pass / Fail
10	40	+ 10		+ 9.65 to + 10.35	Pass / Fail
11	40	- 60		- 59.65 to - 60.35	Pass / Fail
12	16k	+10		+ 9.65 to + 10.35	Pass / Fail
13	16k	- 60		- 59.65 to - 60.35	Pass / Fail
14	30	+ 10		+ 9.5 to + 10.35	Pass / Fail
15	30	- 60		- 59.5 to - 60.5	Pass / Fail
16	20k	+ 10		+ 9.5 to + 10.5	Pass / Fail
17	20k	- 60		- 59.5 to - 60.5	Pass / Fail