

User Manual – Digital Field Level Meter

DIGITAL FIELD LEVEL METER

Model No. 8888

USER MANUAL



**SPEC Technology Corp.
Khasra No.687, Baba Colony
Burari, Delhi-110084
Email: info@spectechnology.com
Web: www.spectechnology.com**

User Manual – Digital Field Level Meter

Technical Specifications

Digital:

Parameter	Value
Frequency Range	42MHz-860MHz
Demodulation Type	DVB-C
QAM Mode	16 QAM, 32 QAM, 64 QAM, 128 QAM, 256 QAM
Avg. Power Range	35dB μ V-120dB μ V
Accuracy	\pm 2dB
Bandwidth	6MHz/7MHz/8MHz
Symbol Rate	1MS/S-7.6MS/S
MER Range <27dB 27 - 31dB >31dB	20dB-42dB, \pm 2dB Signal Quality Bad Average Good
BER	1.0e-02 ~ 0.0e+00

Analog:

Parameter	Value
Frequency Range	48MHz-860MHz
Level Measurement Range	35dB μ V-120dB μ V
Measurement Accuracy	\pm 2dB
Mode of Detection	DSP

Voltage Measurement:

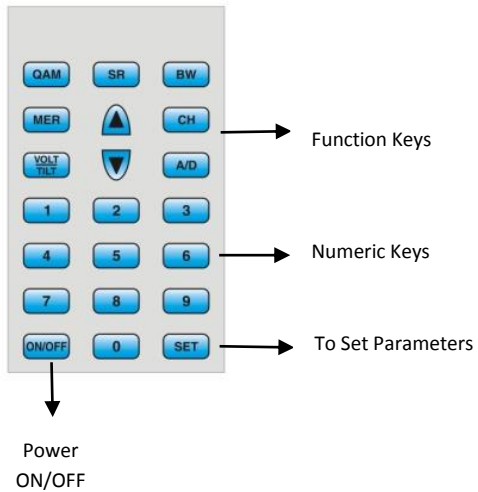
Parameter	Value
Input Range	10-200V AC, \pm 2V
Battery Charger	12V, 2A DC

User Manual – Digital Field Level Meter

Working Conditions:

Parameter	Value
Storage Temperature	-10~50°C
Battery Voltage	>6V DC

Front Panel Layout

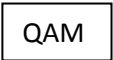


User Manual – Digital Field Level Meter

Keys Operation:



Trunk Line Voltage, Battery Voltage, Four Channel Tilt



Set QAM Mode (16/32/64/128/256)



Set Symbol Rate



Set Bandwidth (6/7/8MHz)



Channel Selection for TILT



Up Key



Down Key



Analog/Digital Selection



MER measurement

User Manual – Digital Field Level Meter

Numeric Keys

0

-

9

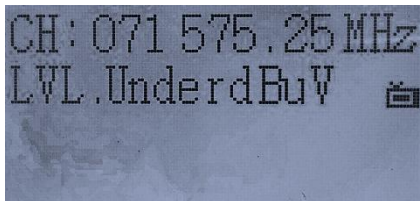
Ten Numeric Keys to enter Symbol Rate

Power Key: To switch ON/OFF the meter

Charging Indicator: When meter is charging, the green indicator will glow.
When meter is fully charged no indicator will glow. In case of any fault, red indicator will glow.

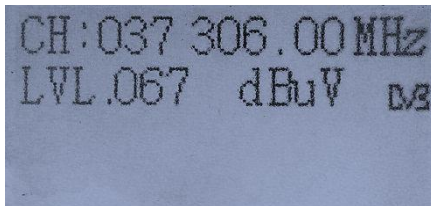
1. Analog Channel Test Mode

1. Single Channel Measurement: Power on the meter, it will display single channel mode on LCD screen .it will display channel number, its frequency and level. If the meter is in Digital mode then press A/D key to change to Analog Mode.



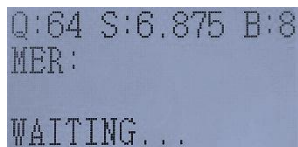
User Manual – Digital Field Level Meter

2. Digital Channel Test Mode: It will display channel number, frequency on the display of LCD screen. Use UP and DOWN arrow key to select a digital channel. If the meter is in Analog mode then press A/D key to change to Digital Mode.



CH:037 306.00 MHz
LVL.067 dBuV D3

3. QAM Test Mode: MER in digital channel power test mode. If the meter is in Analog mode then change to Digital mode using A/D key then press MER key, which can give result of MER. Press again MER key to get back to the digital channel average power test mode.



Q:64 S:6.875 B:8
MER:
WAITING...

Wait for few seconds.

User Manual – Digital Field Level Meter

```
Q:64 S:6.875 B:8  
MER:031dB  
BER:0.0e+00  
SIG.QLTY:AVG.
```

To change Digital parameters like QAM, Symbol Rate & Bandwidth follow the below mentioned steps.

- a. QAM: After waiting screen press QAM key to change QAM mode, press QAM key till desired QAM is displayed on screen then press SET key to save.

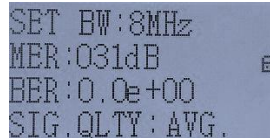
```
SET QAM:64  
MER:032dB  
BER:0.0e+00  
SIG.QLTY:GOOD
```

- b. Symbol Rate: To change Symbol Rate press SR key. Use the Numeric keys 0-9 to enter desired Symbol Rate, press SET key to save.

```
SET SR: .  
MER:032dB  
BER:0.0e+00  
SIG.QLTY:GOOD
```

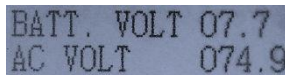
User Manual – Digital Field Level Meter

- c. Bandwidth: To change Bandwidth, press BW key. Press the BW key till desired bandwidth is displayed on screen, press SET to save.



SET BW: 8MHz
MER: 031dB
BER: 0.0e+00
SIG. QLT: AVG.

4. Voltage Measurement: Press VOLT /TILT key, the meter will access to voltage measurement mode. It will display the trunk voltage with automatic detection of “AC” and the battery voltage



BATT. VOLT 07.7
AC VOLT 074.9

5. Tilt Measurement: In the status of level measurement presses VOLT/TILT to access to TILT measurement mode. The meter will measure the slope between any four selected channels. The measured signal levels of four channel is shown graphically with level of first and last channels on the screen with the difference between levels of the two channels in dB.

User Manual – Digital Field Level Meter

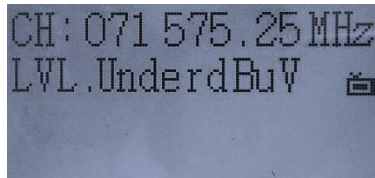
6. Battery: The meter is equipped with a high performance rechargeable Li ion battery. The voltage of battery can be monitored automatically. Press the VOLT/TILT meter will show the battery voltage.


Steps :

Press ON/OFF – Switch on the meter

Analog Mode

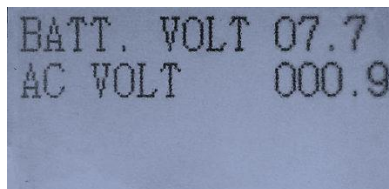
Press A/D



CH: 071 575.25 MHz
LVL Under BuV 

Select channel number with up and down keys

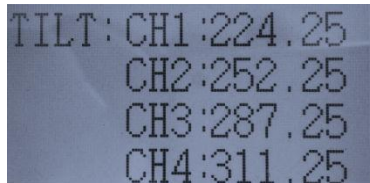
Press VOLT/TILT – For the voltage measurement



BATT. VOLT 07.7
AC VOLT 000.9

Again press VOLT/TILT

User Manual – Digital Field Level Meter



TILT: CH1:224.25
CH2:252.25
CH3:287.25
CH4:311.25

Set channel number 1 by using UP & down key

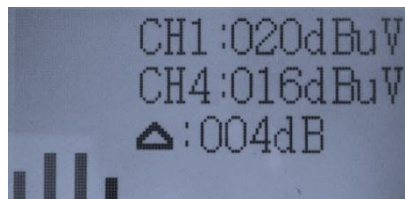
Press CH – To select the channel number 2

Use up & down key

Press CH – channel number 3

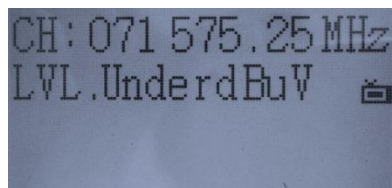
Press CH – channel number 4

Press SET – Now compare the signal levels of two channels



CH1:020dBuV
CH4:016dBuV
△:004dB

Press VOLT/TILT- to get back to the analog channel power test mode

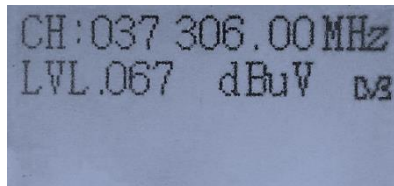


CH: 071 575.25 MHz
LVL: Under dBuV

User Manual – Digital Field Level Meter

Digital Mode

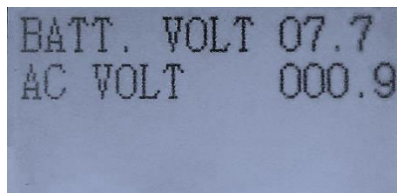
Press A/D



CH:037 306.00 MHz
LVL.067 dBuV μ V

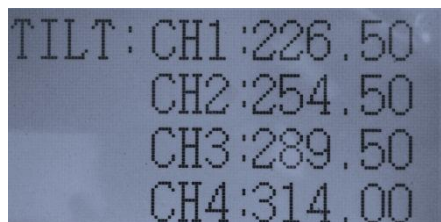
Select channel number with up and down keys

Press VOLT/TILT – For the voltage measurement



BATT. VOLT 07.7
AC VOLT 000.9

Again press VOLT/TILT



TILT: CH1:226.50
CH2:254.50
CH3:289.50
CH4:314.00

User Manual – Digital Field Level Meter

Set channel number 1 by using UP & down key

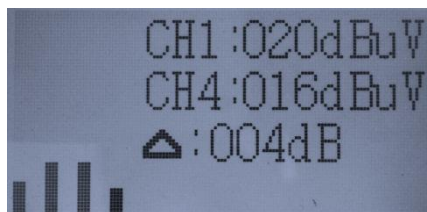
Press CH – To select the channel number 2

Use up & down key

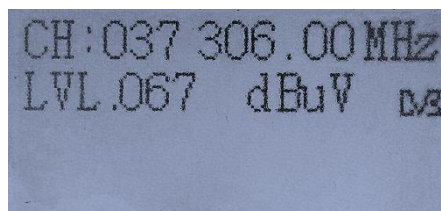
Press CH – channel number 3

Press CH – channel number 4

Press SET – Now compare the signal levels of two channels



Press VOLT/TILT- to get back to the digital channel power test mode



User Manual – Digital Field Level Meter

Channel Number	Displayed Number
E02	1
E03	2
E04	3
X	4
Y	5
Z	6
Z+1	7
Z+2	8
S1	9
S2	10
S3	11
S4	12
S5	13
S6	14
S7	15
S8	16
S9	17
S10	18
E05	19
E06	20

Channel Number	Displayed Number
E07	21
E08	22
E09	23
E10	24
E11	25
E12	26
S11	27
S12	28
S13	29
S14	30
S15	31
S16	32
S17	33
S18	34
S19	35
S20	36
S21	37
S22	38
S23	39
S24	40
S25	41

User Manual – Digital Field Level Meter

Channel Number	Displayed Number
S26	42
S27	43
S28	44
S30	45
S31	46
S32	47
S33	48
S34	49
S35	50
S36	51
S37	52
S38	53
S39	54
S40	55
S41	56
S42	57
E21	58
E22	59
E23	60
E24	61
E25	62
E26	63
E27	64

Channel Number	Displayed Number
E28	65
E29	66
E30	67
E31	68
E32	69
E33	70
E34	71
E35	72
E36	73
E37	74
E38	75
E39	76
E40	77
E41	78
E42	79
E43	80
E44	81
E45	82
E46	83
E47	84
E48	85
E49	86
E50	87

User Manual – Digital Field Level Meter

Channel Number	Displayed Number
E28	65
E29	66
E30	67
E31	68
E32	69
E33	70
E34	71
E35	72
E36	73
E37	74
E38	75
E39	76
E40	77
E41	78
E42	79
E43	80
E44	81
E45	82
E46	83
E47	84
E48	85
E49	86
E50	87

Channel Number	Displayed Number
E51	88
E52	89
E53	90
E54	91
E55	92
E56	93
E57	94
E58	95
E59	96
E60	97
E61	98
E62	99
E63	100
E64	101
E65	102
E66	103
E67	104
E68	105
E69	106