

EXTECH 380193 Passive Component LCR Meter RS-232 Command Table

Use IR as the interface of Data transmission, and use external computer to start RS-232 functions.

RS-232 Interface Parameter :

Baud rate : 1200
Parity check : EVEN
Data bits : 7
Stop bits : 1

(1) Setup Selections

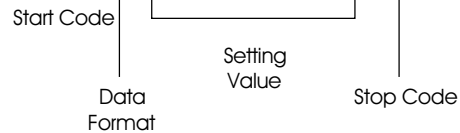
a. Command S: Meter will enter the Setup mode and return "SETUP READY..x".
(x:firmware version)

b. Command

[E(L/C/R)(Q/D/R)(P/S)(A/B)(A/M)(0~6)]:
Main function change
(L/C/R): L, C or R test function
(Q/D/R): Q, D or R
(P/S): P-PAL / S-SER
(A/B): A - 1KHz / B - 120Hz
(A/M): A - AUTO / M - MANUAL
(0~6): Manual range

c. Command [A-AAAAA]: Default change

S	0	1	2	3	4	5	6	7	8
A	[U	±	1	9	9	9	9]



[U±19999] : REL SET setting value
[V±19999] : Limits Hi setting value
[W±19999] : Limits Lo setting value
[X±19999] : TOL SET setting value
[Y±19999] : TOL SET Hi setting value
[Z±19999] : TOL SET Lo setting value

After receiving of setting data from PC (U/V/W/X/Y/Z), and will send out the receiving data again then it is convenient for PC to check the accuracy of data output are total 7 digits.

d. Command [BXXXXXX]:
Exit the SETUP mode

(2) Read Data

Command N: Read Meter current data and status.

Data format: There are 39 ASCII code.
The Main Display data just send L/C/R data that don't process before (like the data before REL).

The Second Display data is the same as Main.

1. L / C / R
2. Q / D / R
3. A(1KHz) / B(120Hz)
4. P(PAL) / S(SER)
5. A(AUTO) / M(MENU)
6. 0 / 1: Main Display MSD,
8: while changing range ,
9: OL
7. 6~10 : Main Display Data
- 8.
- 9.
10. LSD
11. Main Display Range
12. MSD
13. 12~15 : Second Display Data
- 14.
15. LSD
16. Second Display Range , 9: OL
17. Sequence 0~9 cycling
18. MSD
19. 18~21 : D value
- 20.
21. LSD
22. Range for D value , 9 : OL
23. MSD
24. 23~26 : Q value
- 25.
26. LSD
27. Range for Q value , 9 : OL
28. S(SET) / _(normal)
29. F(FUSE) / _(normal)
30. H(HOLD) / _(normal)
31. R(Present value) / M(Maximum value) /
I(Minimum value) / X(Max-Min value) /
A(Average value) / _(normal)
32. R(REL) / S(REL SET) / _(normal)
33. L(LIMITS) / _(normal)
34. T(TOL) / S(TOL SET) / _(normal)
35. B(Backlight) / _(normal)
36. A(Adapter insert) / _(normal)
37. B(Low Battery) / _(normal)
38. CR (ASCII : 0DH)
39. nl(LF) (ASCII : 0AH)

(3) RS-232 Output Chart for Main Display :

range	Rs	R		L		Rs	C	
		1KHz/120Hz	1KHz	120Hz	1KHz		120Hz	
0	100	20.000	2000.0 H	20.000mH	100K	2000.0pF	20.000nF	
1	100	200.00	20.000mH	200.00mH	100K	20.000nF	200.00nF	
2	100	2000.0	200.00mH	2000.0mH	10K	200.00nF	2000.0nF	
3	1K	20.000K	2000.0mH	20.000H	1K	2000.0nF	20.000 F	
4	10K	200.00K	20.000H	200.00H	100	20.000 F	200.00 F	
5	100K	2000.0K	200.00H	2000.0H	100	200.00 F	2000.0 F	
6	100K	10.000M	1000.0H	10000H	100	2000.0 F	20.000mF	

(4) RS-232 Output Chart for Second Display :

range	Q / D	R	R	R
		(Rs=100)	(Rs=1K 10K)	(Rs=100K)
1	999.9	99.99	99.99	X
2	99.99	999.9	999.9	999.9
3	9.999	9.999K	9.999K	9.999K
4	.9999	99.99K	99.99K	99.99K
5	X	X	999.9K	999.9K

(5) FORMULA :

$$R_p = R_s(1+Q^2)$$

$$C_p = C_s[1/(1+D^2)]$$

$$C_s = C_p(1+D^2)$$

$$L_p = L_s[1+(1/Q^2)]$$

$$L_s = L_p[Q^2/(1+Q^2)]$$