Elecraft W1 Serial Interface Commands

Revision C-1, December 6, 2006

The W1 serial port is configured for 9600 baud, 8 data bits, 1 stop bit, no handshake.

The W1 responds to commands for data supplied by the external system. Nothing is sent until a command is received by the W1. These requests are in the form of a single letter as shown below. The user sends a single character and receives one data string in response. The semicolon (;) is an end-of-string identifier, and will be at the end of every return string. All strings are fixed length; a space may be added to some strings to ensure this.

Command		
B	Purpose	Request forward-power bargraph level and present range.
	String Length	5 chars.
	Response	B<L|M|H>nn;
	Notes	<L|M|H> is the Range (Low|Medium|High) nn is 00 (no LEDs lit) to 10 (all LEDs lit).
C	Purpose	Request reverse-power bargraph level and present range.
	String Length	5 chars.
	Response	C<L|M|H>nn;
	Notes	<L|M|H> is the Range (Low|Medium|High) nn is 00 (no LEDs lit) to 10 (all LEDs lit).
D	Purpose	Request SWR bargraph level.
	String Length	4 chars.
	Response	Dnn;
	Notes	nn is 00 (no LEDs lit) to 10 (all LEDs lit).
F	Purpose	Request Forward Power in Watts.
	String Length	6 chars.
	Response	F<n.nn|nn.n|nnn >;
	Notes	Response is floating point. n.nn is power from 0.000 to 9.99 watts nn.n is power from 10.00 to 99.9 watts nnn is power from 100.0 to 149 watts.
L	Purpose	Toggles W1 LEDs on or off.
	String Length	5 chars.
	Response	L<OFF|ON >;
	Notes	Power On default is On.
M	Purpose	Toggles between an Average or PEP display of Forward Power LEDs.
	String Length	5 chars.
	Response	M<AVG|PEP>;
	Notes	Current setting can be saved in memory.
N	Purpose	Toggles between an Average or PEP value of Power serial data.
	String Length	5 chars.
	Response	M<AVG|PEP>;
	Notes	Current setting can be saved in memory.

Command		
P	Purpose	Toggles between regular LED bargraph or Peak-Hold + bargraph.
	String Length	5 chars.
	Response	PK<NO|ON>;
	Notes	Peak-hold default is No. Current setting can be saved in memory.
R	Purpose	Request Reverse Power in Watts.
	String Length	6 chars.
	Response	R<n.nn|nn.n|nnn >;
	Notes	Response is floating point. n.nn is power from 0.000 to 9.99 watts nn.n is power from 10.00 to 99.9 watts nnn is power from 100.0 to 149 watts.
S	Purpose	Request the SWR value.
	String Length	6 chars.
	Response	Snn.n;
	Notes	nn.n is the SWR from 1.0 to 99.9.
U	Purpose	Request the user settings that were last stored in EEPROM
	String Length	7 chars.
	Response	U<A|P><A|P><S|M|F><S|M|F><P|R>;
	Notes	First A or P is Average power or PEP for Forward Power LEDs. Second A or P is Average power or PEP for Forward or Reverse Power serial data. First S or M or F is Slow or Medium or Fast LED decay Rate. Second S or M or F is Slow or Medium of Fast Range drop rate. Final P or R is Peak-hold or Regular Forward Power LEDs.
V	Purpose	Request the firmware version.
	String Length	6 chars.
	Response	Vn.nn;
	Notes	n.nn is the version of 1.00 to 9.99.
W	Purpose	Writes to EEPROM the user settings currently being used in RAM
	String Length	4 chars.
	Response	WOk; ("Write attempt OK").
	Notes	

Command		
X	Purpose	Request the user settings currently being used in RAM
	String Length	7 chars.
	Response	X<A|P><A|P><S|M|F><S|M|F><P|R>;
	Notes	First A or P is Average power or PEP for Forward Power LEDs. Second A or P is Average power or PEP for Forward or Reverse Power serial data. First S or M or F is Slow or Medium or Fast LED decay Rate. Second S or M or F is Slow or Medium of Fast Range drop rate. Final P or R is Peak-hold or Regular Forward Power LEDs.
0	Purpose	Set W1 to Autorange.
	String Length	3 chars.
	Response	A0;
	Notes	This is the power on default.
1	Purpose	Set W1 Range to Low.
	String Length	3 chars.
	Response	A1;
	Notes	
2	Purpose	Set W1 Range to Medium.
	String Length	3 chars
	Response	A2;
	Notes	
3	Purpose	Set W1 Range to High.
	String Length	3 chars.
	Response	A3;
	Notes	
4	Purpose	Set LED decay rate to Slow.
	String Length	3 chars
	Response	HS;
	Notes	Current setting can be saved in memory.
5	Purpose	Set LED decay rate to Medium.
	String Length	3 chars.
	Response	HM;
	Notes	Current setting can be saved in memory.
6	Purpose	Set LED decay rate to Fast.
	String Length	3 chars
	Response	HF;
	Notes	Current setting can be saved in memory.
7	Purpose	Set Range drop rate to Slow.
	String Length	3 chars.
	Response	YS;
	Notes	Current setting can be saved in memory.
8	Purpose	Set Range drop rate to Medium.
	String Length	3 chars.
	Response	YM;
	Notes	Current setting can be saved in memory.
9	Purpose	Set Range drop rate to Fast.
	String Length	3 chars.
	Response	YF;
	Notes	Current setting can be saved in memory.