

PeakTech 2025

Communication protocol

Connection settings:

USB	
Supported:	Yes
Vendor ID:	0x2571
Product ID:	0x4100
Mode:	RAW HID
Frame size:	8 bytes
Comments:	Dependent on USB implementation you may receive 9 bytes. First byte (always 0x00) needs to be ignored in this case.

RS232	
Supported:	Partial (see comments)
Baud:	2400
Parity:	None
Data / Stop:	8 / 1 Bit(s)
Frame size:	14 Bytes
Comments:	Device uses RS232 internal with a different frame format. There are 2 board revisions, one operates as USB HID device (driverless), one as virtual COM port. The data packet format differs for each revision.

Frame content (USB HID):

Byte 0	Byte 1..2	Byte 3	Byte 4	Byte 5	Byte 6	Byte 7
Sign+Dec	7 seg. display (as BCD)	SB1	SB2	SB3	SB4	Bar graph

Frame content (RS232):

Byte 0	Byte 1..4	Byte 5	...	
Sign	Digit 4..0	0x20	...	
...	Byte 6	Byte 7..10	Byte 11	Byte 12..13
...	Point	SB1...SB4 (as above)	Bar graph	End mark (CrLf) 0x0D 0x0A

Byte 0: (USB HID - Sign & Decimal position)

Bit 7	Bit 6	Bit 5	Bit 4	Bit 3..0
1	Negative	Positive	1	Decimal position (0..4)

0=xxxx, 1=x.xxx, 2=xx.xx, 3+4=xxx.x

Byte 0: (RS232 - Sign)

0x2B for positive, 0x2D for negative values

Byte 1..2: (USB HID - 7 segment display numbers)

Bit 7..4	Bit 3..0
Thousands (Byte 1) / Tenths (Byte 2) (as BCD)	Hundreds (Byte 1) / Ones (Byte 2) (as BCD)

Byte 1..4: (RS232 - 7 segment display numbers)

Digits, transferred as ASCII, so 0x30=0, 0x31=1, ... one digit each byte.

Byte 6 (RS232 only): (Decimal position)

0=xxxx, 1=x.xxx, 2=xx.xx, 3+4=xxx.x

Byte 3 (USB HID) / Byte 7 (RS232): (Status Byte 1)

Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
0	0	AUTO	DC	AC	REL	HOLD	BPN

Byte 4 (USB HID) / Byte 8 (RS232): (Status Byte 2)

Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
0 (Z1)	0 (Z2)	MAX	MIN	APO	BATT	n	0 (Z3)

Byte 5 (USB HID) / Byte 9 (RS232): (Status Byte 3)

Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
μ	m	k	M	Continuity	Diode	%	0 (Z4)

Byte 6 (USB HID) / Byte 10 (RS232): (Status Byte 4)

Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
V	A	Ω	hFE	Hz	F	°C	°F

Byte 7 (USB HID) / Byte 11 (RS232): (Bar graph)

Bit 7	Bit 6..0
Negative	Bargraph value (0..60, >60=OL sign)