

Applications:

The Mar-In wireline modem is designed to interface well equipment running on wirelines, but can be used on any type of equipment that require a communication interface through power lines. The system consists of a topside modem and a downhole modem, where the latter can be used in high temperatures and with high voltages.



On the topside part, the modem can be configured to use customer specific connectors in order to interface the topside power source. The modem has selectable USB or RS232 interface for data communication. A VFD display show the main transmission parameters and some settings can be entered through a menu system. On the downhole side, a 3 pin high voltage D-Sub contact is all that is required to interface the power cable. Communications and power is fed to the modem through a 9-pin D-Sub.

The modem is specifically designed to work on power cables with high capacitance and long lengths, and to interface equipment that may generate high amounts of noise (like motor drives).

Topside Modem:

Maximum input voltage:	1500Vdc
Maximum input current:	6 A
Wireline communication speed:	1200 – 19.200bps
Modulation frequency:	3 – 20kHz*
Transmitter output voltage:	1 – 10Vp-p
Receiver signal range:	10mV – 15V
Receiver SNR for BER = xx	T.B.D.
Operating temperature:	10 – 50 deg C
PC interface:	USB / RS232
User interface:	4 x 20 character VFD display Navigation buttons
Physical measurements:	480(w) x 88(h) x 270(d) The unit will fit in a standard 19" rack (2U height)

*Can be adjusted depending on cable type and load

Downhole Modem:

Maximum input voltage:	600Vdc
Maximum input current:	6 A
Wireline communication speed:	1200 – 19200bps
Modulation frequency:	3 – 20kHz*
Transmitter output voltage:	1 – 8Vp-p
Operating temperature:	10 – 177 deg C
Receiver signal range:	10mV – 15V
Input supply voltage:	10 – 20V
Current consumption in RX	15mA (with 15V supply voltage)
Current consumption in TX	30mA (depending on load)
Physical measurements:	152mm (L) x 25mm (H) x 40mm (W)

