Satphone 9770 OEM
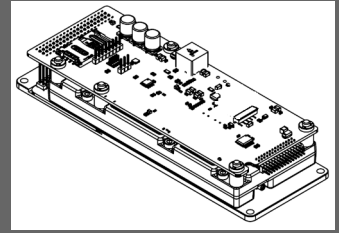
A Flexible Developer Module for the Certus 100
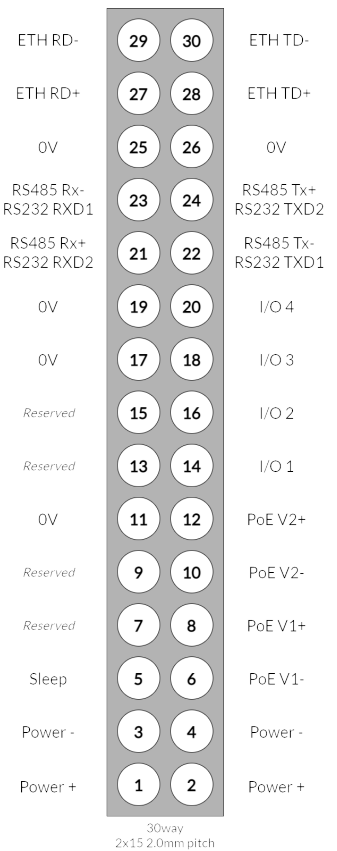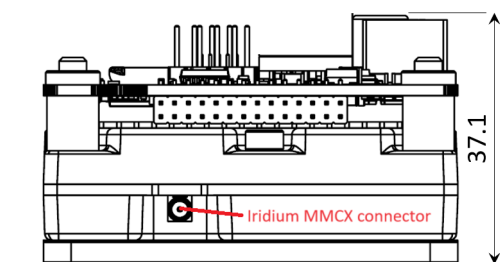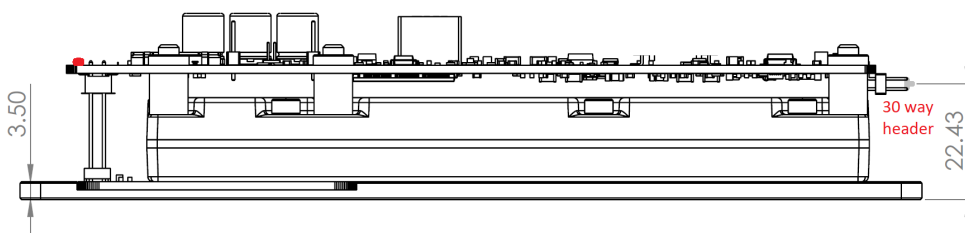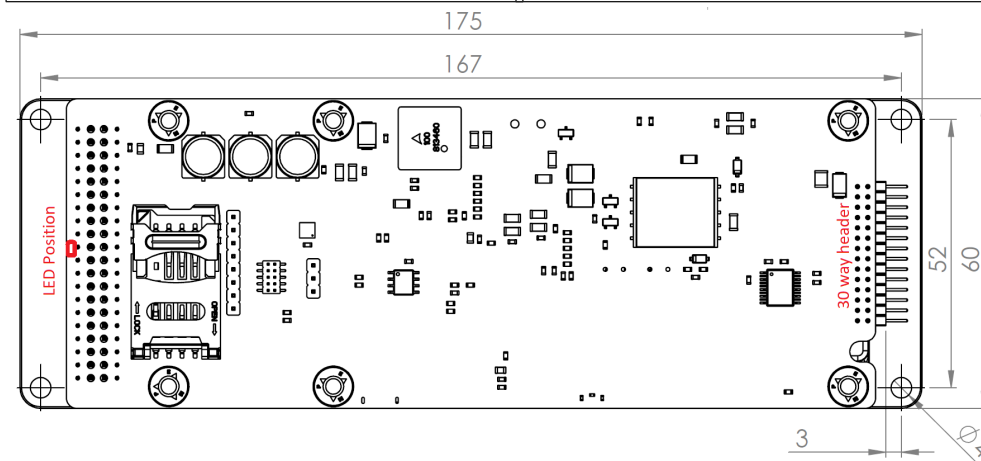
Satphone
Global Voice & Data Services

Provides satellite connectivity via the built in Iridium Certus 100 module.
Make TCP/IP connections or use the more efficient IMT messaging protocol from Iridium.
9770 OEM will be able to achieve full Iridium certification for use in OEM applications.
Configuration of ethernet LAN and the WAN is accomplished via Bluetooth (BLE) using a companion App or API.
9770 OEM is optimised for low power consumption for a market-leading implementation of the Iridium Certus 100 module. The unit can also be supplied by Power Over Ethernet(POE).
All essential non-RF connections are made using a single 30way 2x15 2.0mm pitch header.
Iridium Certus and GNSS antennas required for the full solution.
Designed for easy installation using just 4 screw mounts.

Item	Specification
Supply voltage	10 – 30V DC
Power consumption (Sleep)	< 10mW/30mW (12V/24V)
Power consumption (Idle – Rx mode)	< 250mW (<20.8mA@12V, <10.4mA@24V)
PEAK current draw	<1.66A@12V, <833mA@24V, 10% duty cycle during Iridium transmit.
Serial interface	RS232 or RS485
GPIO	4 channels
UART	Logic level UART accessible on the PCB (2nd header – PCB position TBD)
Operating temperature/humidity	-40℃ to 70℃, ≤ 95% RH
LAN	10/100 Ethernet with PoE capability.
WAN	Iridium Certus 100
Bluetooth	BLE 5.0 (Config API framework will be published)
Iridium antenna connection	MMCX
GNSS antenna connection	U.FL (PCB position TBD)

Pin			Pin	
ETH RD-	29	30	ETH TD-	
ETH RD+	27	28	ETH TD+	
0V	25	26	0V	
RS485 Rx- / RS232 RXD1	23	24	RS485 Tx+ / RS232 TXD2	
RS485 Rx+ / RS232 RXD2	21	22	RS485 Tx- / RS232 TXD1	
0V	19	20	I/O 4	
0V	17	18	I/O 3	
Reserved	15	16	I/O 2	
Reserved	13	14	I/O 1	
0V	11	12	PoE V2+	
Reserved	9	10	PoE V2-	
Reserved	7	8	PoE V1+	
Sleep	5	6	PoE V1-	
Power -	3	4	Power -	
Power +	1	2	Power +	

30way
2x15 2.0mm pitch

LED colour	Meaning
Green (solid)	Powered
Green (flashing)	LAN activity
Red (solid)	OK
Red (flashing)	Fault
Blue (solid)	Iridium connection
Blue (flashing)	Bluetooth ready.
All flashing in sequence	Bluetooth connected

🔥 **DANGER**