



# within trees

## Integrated Cell Modem and Sensors

### Specifications

#### Cellular Modem

**Model:** NimbeLink SkyWire 4G LTE-M (CAT M1) and NB-IoT (NB1, NB2) with global connectivity

**Features:** Embedded modems are "end-device certified" (no carrier certification required)

GNSS receiver for GPS, GLONASS, Beidou/Compass, Galileo

Multi-carrier support on a single device

Dual SIM support

ECCN Number Harmonized B code for export: 5A992.c

**Data throughput:** 4G LTE-M (588 Kbps download / 1 Mbs upload)  
4G NB2-IoT (120 Kbps download / 160 Kps upload)

**Operating temperature:** -40°C to +85°C (-40°F to +185°F)

**Power:** Supply voltage: 3.4 - 4.2 VDC (3.8 VDC nominal)  
I/O voltage: 1.65 - 5.5 V DC

**Dimensions:** 29 x 33.6 x 6.63 mm (1.1 x 1.3 x 0.4 in)

**Approvals:** Regulatory approvals: PTCRB, CE/RED, FCC, IC  
Carrier approvals: Verizon, AT&T, Orange, t-Mobile, Rogers, Telus, Vodafone and more  
RoHS Compliant

**Deployable region:** Global

#### Enclosure:

**Housing:** Flanged Heavy Duty Enclosure

**Environmental Rating** IP-67 (developed for measurement applications that require a high level of protection from water, dust and impact)

**Dimensions:** 154 x 65 x 59 mm (6.06 x 2.56 x 2.32 in)

**Material:** Enclosure is made from UL94 HB rated ABS material

**Operating temperature:** -20°C to +60°C (-4°F to +140°F)

#### Battery:

**Battery Chemistry** Lithium Thionyl Chloride

**Battery Cell Size** D (single battery)

**Voltage - Rated** 3.6 V

**Capacity** 13Ah

#### Sensors:

**Type:** SMT100 Modbus (the SMT100 datasheet is listed on the website)

**Number of sensors** A single enclosure connector supports up to two sensors  
(the sensors can be preinstalled for no additional charge or shipped separately)