

INTERNET CONNECTIVITY BY NELSON IRRIGATION

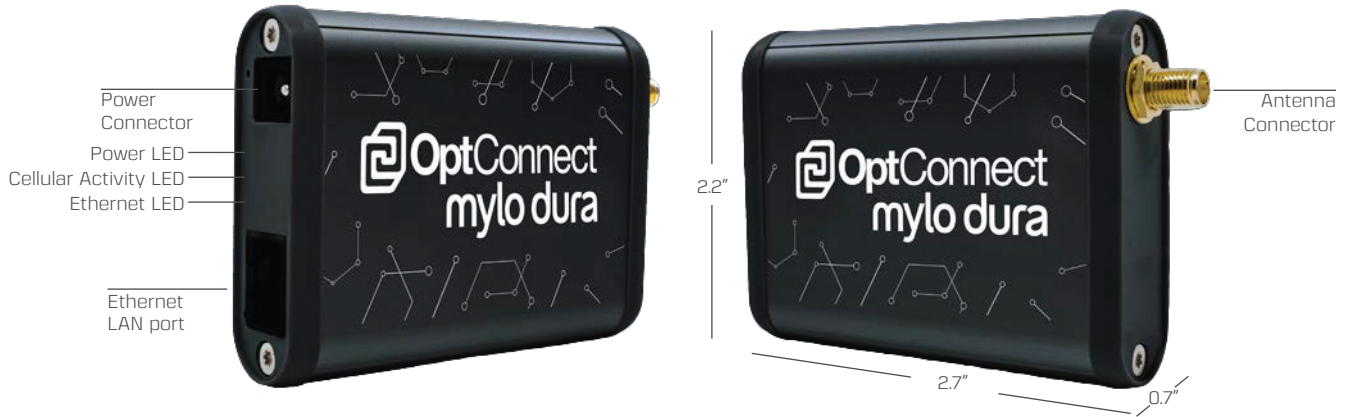
Reliable cellular service for the Twig® Wireless System



FEATURES:

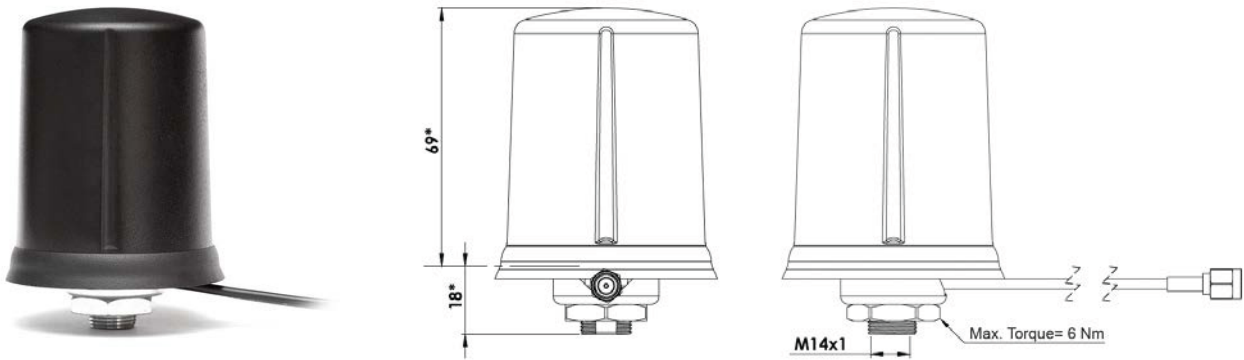
- **Fully Managed** by Nelson Irrigation with additional service and support from our partner OptConnect, a global provider of cellular solutions.
- **Reliable** dual carrier eSIM automatically switches between Verizon and AT&T networks (USA & Canada; AT&T only in Mexico).
- **Industrial Grade:** aluminum case with increased temperature range for industrial applications, mounted in a weather resistant enclosure.
- **Futureproof** 4G/5G LTE CAT M1 Technology
- **Kit #14159** Includes enclosure, antenna, ethernet cable, and 110V power adapter; optional DC power supply (#14222) for solar systems.

MODEM SPECIFICATIONS



- **Dimensions:** 2.7 x 2.2 x 0.7 in (69 x 56 x 18 mm)
- **Operating Temperature:** -40° to +85° C (-40° to 185° F)
- **Power Consumption:** 5G, 10-15 watts peak

ANTENNA SPECIFICATIONS

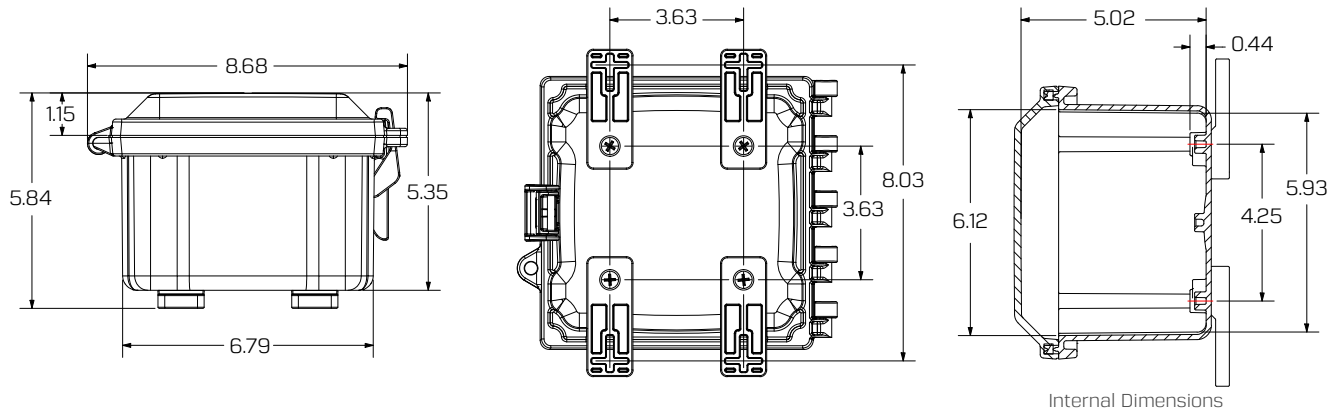


FREQUENCY	VSWR	EFFICIENCY	AVERAGE GAIN	PEAK GAIN
698-960 MHz	~1.9:1	~66.9%	~-1.8 dBi	~1.9 dBi
1710-2170 MHz	~1.2:1	~74.5%	~-1.3 dBi	~4.3 dBi
2500-2700 MHz	~1.4:1	~58.9%	~-2.3 dBi	~4.2 dBi

- **Nominal Impedance:** 50
- **Radiation Pattern:** Omnidirectional
- **Polarization:** Linear
- **Max Input Power:** 25
- **Operating & Storage Temperature:** -40° to +85° C (-40° to 185° F)
- **Substance Compliance:** RoHS
- **Certificates:** IP69, IK09

ENCLOSURE SPECIFICATIONS

All dimensions in inches



Materials

- **Enclosure:** Polycarbonate with UV inhibitors
- **Cover Screw:** 304 Stainless Steel
- **Gasket:** Neoprene
- **Metal Inserts:** threaded brass accepting #10-32 screws

Industry Standards

- **Flammability:** UL94-5VA
- **UL/cUL File #:** E319779
- **Impact Rating (IK10):** No
- **CSA Std. C22.2 File #:** No

Mounting

- **Bosses:** Panel mounting capability for fixed rear panel
 - **Mounting Feet Inserts:** #1/4-20 x 1/2
 - **Mounting Feet Torque:** 14-16in.-lbs
 - **Cover Screw Size:** #10-32 x 5/8
 - **Back Panel Screw Size:** #10-32 x 3/8
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- **IEC 60529 Ratings:** IP66
 - **NFPA No. 101 Flame Spread:** N/A
 - **Outdoor UV Exposure (UL 746C):** (f1) Rated
 - **Plenum Space Rating (UL 2043):** No



AC/DC POWER CONVERTER (#14222) FOR SOLAR-POWERED TWIG-MC CONTROLLERS



- **Input Voltage Range:** AC 18-24V; DC 8-40V
- **Output Voltage:** DC 5V
- **Output Current:** 5 A
- **Output Power:** 25 W
- **Conversion Efficiency:** >93%
- **Ripple:** 40 mV
- **No-load current:** 8 mA
- **Working Temperature:** -40° to +85° C (-40° to 185° F)
- **Waterproof rating:** IP67
- **Cable Length:** 13 cm
- **Protection:** Over-current, over-voltage, over-heat, short circuit
- **Case Material:** Plastic

Nelson Irrigation Twig® wireless products and accessories are warranted for one year from date of original sale to be free of defective materials and workmanship when used within the working specifications for which the product was designed and under normal use and service. The manufacturer assumes no responsibility for installation, removal or unauthorized repair. The manufacturer's liability under this warranty is limited solely to replacement or repair of defective parts, and the manufacturer will not be liable for any crop or other consequential damages resulting from any defects in design or breach of warranty. THIS WARRANTY IS EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR PARTICULAR PURPOSES and of all other obligations or liabilities of manufacturer. No agent, employee or representative of the manufacturer has authority to waive, alter or add to the provisions of warranty, nor to make representations or warranty not contained herein.

See www.nicpat.com for a list of patent numbers.

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