

MKIII-RTI-LR / MKIII-RTN-LR

MKIII MSP430 Consumer 2.4GHz Specifications

MKIII MSP430

Power Specification: 6V 5AH AGM Sealed Lead Acid, 0.6W Solar Panel

Operating Environment:

Temperature: -40 ~ 70°C (-40 ~ 158°F)

Humidity: 0 ~ 100% Condensing

Ambient Air Temperature Sensor:

Range: -55 ~ 85°C (-67 ~ 185°F)

Accuracy: $\pm 0.2^{\circ}\text{C}$ at 25°C ($\pm 0.4^{\circ}\text{F}$ at 77°F)

Resolution: 0.056°C (0.1°F)

Relative Humidity:

Operational Temperature: -40 ~ 70°C (-40 ~ 158°F)

Range: 0 ~ 100%

Accuracy: $\pm 2\%$ for $10 \leq \%RH \leq 90$ at 25°C (77°F)

$\pm 4\%$ for $10 > \%RH > 90$ at 25°C (77°F)

Resolution: 1%

Barometric Pressure:

Operational Temperature: -40 ~ 85°C (-67 ~ 185°F)

Range: 300 ~ 1100 mbar (8.86 ~ 32.49 inHg)

Accuracy: ± 0.5 mbar between 700-1100 mbar at 25°C

(± 0.015 inHg between 20.67 ~ 32.49 inHg. at 77°C)

Resolution: 0.34 mbar (0.01 inHg)

Anemometer (Reed Switch)

Operational Temperature: -40 ~ 85°C (-40 ~ 185°F)

Anemometer Extension: Up to 15.24m (50ft)

Wind Direction:

Range: 0 ~ 360°

Accuracy: ±11.25°

Resolution: 22.5°

Starting Threshold: 1.98 m/s (4.43 mph)

Wind Speed:

Range: 0 ~ 67 m/s (0 ~ 150 mph)

Accuracy: Greater of 0.45m/s (1 mph) or 5% of Reading

Resolution: 0.045 m/s (0.1 mph)

Threshold: 0.65 m/s (1.45 mph)

Radio Transmitter

2.4GHz

Operational Temperature: -40 ~ 85°C (-67 ~ 185°F)

Outdoor Line-of-Sight Range: Up to 1600 m (1 mi),
Up to 750 m (2500 ft) for EU Variant

Transmitter Output Power: 18dBm, 10 dBm for EU Variant

Operating Frequency: ISM 2.4GHz

Update Rate: 2s

MKIII MSP430 Optional Sensors

Available Sensors: 1 ~ RainWise Liquid Precipitation

1 ~ RainWise Consumer Pyranometer*

1 ~ RainWise Consumer UVI*

2 ~ RainWise Temperature Sensors*

x ~ RainWise Soil Temperature*

x ~ RainWise Water Temperature*

x ~ RainWise Ambient Air

Temperature*

x ~ RainWise Road/Rail Temperature*

*Requires Add-On board

RainWise Liquid Precipitation:

Operational Temperature:	0 ~ 85°C (0 ~ 185°F)
Range:	0 ~ 762 mm/hr (0 ~ 30 in/hr)
Accuracy:	±2% at 25.4 mm/hr (±2% at 1 in/hr)
Resolution:	0.254 mm (0.01 in)

RainWise Consumer Pyranometer Sensor:

Operational Temperature:	-40 ~ 70°C (-40 ~ 158°F)
Range:	0 ~ 2500 W/m ²
Spectral Response:	400-1100 nm
Accuracy:	±10%
Resolution:	1 W/m ²

RainWise Consumer UV Sensor:

Operational Temperature:	-40 ~ 70°C (-40 ~ 158°F)
Range:	0 ~ 40 UVI
Spectral Response:	290 ~ 400 nm
Accuracy:	±10%
Resolution:	0.1 UVI

RainWise Soil Temperature:

Range:	-55 ~ 85°C (-67 ~ 185°F)
Accuracy:	±0.2°C at 25°C (±0.4°F at 77°F)
Resolution:	0.056°C (0.1°F)

RainWise Water Temperature:

Range:	-55 ~ 85°C (-67 ~ 185°F)
Accuracy:	±0.2°C at 25°C (±0.4°F at 77°F)
Resolution:	0.056°C (0.1°F)

RainWise Ambient Air Temperature:

Range:	-55 ~ 85°C (-67 ~ 185°F)
Accuracy:	±0.2°C at 25°C (±0.4°F at 77°F)
Resolution:	0.056°C (0.1°F)

RainWise Road/Rail Temperature:

Range:	-55 ~ 85°C (-67 ~ 185°F)
Accuracy:	±0.2°C at 25°C (±0.4°F at 77°F)
Resolution:	0.056°C (0.1°F)