mRo Professional GPS Family






Specifications	mRo GPS u-Blox Neo-M8N Dual Compass LIS3MDL+ IST8310	mRo GPS u-Blox Neo-M8N / 3DR SOLO (New)	mRo SAM GPS + IST8308 Mag (Full Size) MRO10037	mRo SAM GPS + IST8308 Mag (Medium Size) MRO10038	mRo Location ONE	mRo ZED F9
Ground Plane	40mm x 47mm	40mm x 47mm	40mm x 40mm	31mm x 31mm	50mm x 50mm	70mm x 70mm
Constellations	USA (GPS), Russia(GLONASS) and Europe (Galileo). China can be enable (BeiDou).	USA (GPS), Russia(GLONASS) and Europe (Galileo). China can be enable (BeiDou).	USA (GPS), Russia(GLONASS) and Europe (Galileo). China can be enable (BeiDou).	USA (GPS), Russia(GLONASS) and Europe (Galileo). China can be enable (BeiDou).	USA (GPS), Russia(GLONASS), Europe (Galileo) & China (BeiDou).	GPS (L1/L2) Glonass (L1/L2) Galileo BeiDou
Compatibility* *See full compatibility chart for supported flighstack versions	**LIS3MDL** support: both PX4 and Ardupilot **IST8310** support: both PX4 and Ardupilot	**Designed to for 3DR SOLO drone** No compass	**IST8308** supports: Ardupilot	**IST8308** supports: Ardupilot	**RM-3100** supports: both PX4 and Ardupilot	No Compass
RTK ready	No	No	No	No	No	Yes
USB Port	Yes	Yes	No	No	Yes (Type C)	Yes (Type C)
CAN ready	No	No	No	No	Yes	No
Minimum and Maximum Operating Temperature	-20 ~ 80 °C	-20 ~ 80 °C	-20 ~ 80 °C	-20 ~ 80 °C	-20 ~ 80 °C	-20 ~ 80 °C
LED	Yes	No	Yes	Yes	Yes	Yes
Dimensions	40mm x 47mm x 9.9mm	40mm x 47mm x 9.9mm	40mm x 40mm x 11.5mm	31mm x 31mm x 11.5mm	50mm x 50mm x 7mm	70mm x 70mm x 14mm
Weight	16.60 grams (.586 oz)	16.60 grams (.586 oz)	9 grams (.32 oz)	7.86 grams (.28 oz)	20.26 grams (.71 oz)	59.6 grams (2.1 oz)
Mounting Holes	2.5mm and 5.4mm	2.5mm and 5.4mm	3.2mm	No	3.2mm	3mm
Case	Optional	Not required	Optional	Optional	Optional	Optional
Connectors	-6-Pins JST-GH -Auxiliary Port I2c	-Molex Click-Mate	-6-Pins JST-GH -Auxiliary Port I2c	-6-Pins JST-GH -Auxiliary Port I2c	-2x, 4-Pins JST-GH (CAN) -1x, 4-Pins JST-GH (I2C) -1x, 6-Pins JST-GH (Ublox UART)	-6-Pins JST-GH (Ublox UART + I2C) -6-Pins JST-GH (Ublox UART2)
Includes	1x 6-Pins JST-GH cable		1x mRo uGPS ublox Sam M8Q. 1x 6-Pins JST-GH to 6-Pins JST-GH - MRC0206 1x 6-Pins JST-GH to 6 Separate 2.54mm Females - MRC0202 (For project versatility)	1x mRo uGPS ublox Sam M8Q. 1x 6-Pins JST-GH to 6-Pins JST-GH - MRC0206 1x 6-Pins JST-GH to 6 Separate 2.54mm Females - MRC0202 (For project versatility)	1x mRo Location One 2x 6-pines JST-GH 1x USB -C cable	1x mRo ZED F9 2x 6-Pins JST-GH to 6
[Quality] and Typical Platforms	**[High-Middle]** -Multirotor -Rover -Fixed-Wing -Boats -VTOL -Automatic Tractors -Others	**[High]** Drone 3DR SOLO	**[High]** -Multirotor -Rover -Fixed-Wing -Boats -VTOL -Automatic Tractors -Others	**[High]** -Multirotor -Rover -Fixed-Wing -Boats -VTOL -Automatic Tractors -Others	**[High-End]** -Multirotor -Rover -Fixed-Wing -Boats -VTOL -Automatic Tractors -Others	**[High-End]** -Multirotor -Rover -Fixed-Wing -Boats -VTOL -Automatic Tractors -Others
Other Features	*RGB LED driver (NCP5623) integrated. *PPS pad for easy access. *On-board safety switch.		*PPS/GND signal pads *Rechargeable battery *Status LED *Standard JST-GH (GPS and I2C) *Standard 30.5mm x 30.5mm mounting holes (1.2" x 1.2")	*Lightest GPS version , 7.86 grams (.28 oz) *PPS/GND signal pads *Rechargeable battery *Status LED *Standard JST-GH (GPS and I2C)	*mRo GPS version that has the best compass system available at the moment for light weight plattforms *RGB LED driver (NCP5623) *PPS pad for easy access *On-board safety switch	*Muti-Band: supporting both L1 and L2 bands *Improved frequency selectivity and signal conditioning provided by the on-board LNA's + SAW's for both bands *Onboard Multi-band antenna which makes the integration lighest and easy rather than using extarnal long corded active antennas. *RTK capability for either Rover or Base configuration