

**GENERAL**

Frequency	1575.42 MHz (GPS/Galileo/QZSS/SBAS) 1602.5625 MHz (GLONASS)
Tracking Code	C/A (GPS/QZSS/SBAS), E1B (Galileo), L10F (GLONASS)
Attitude	Heading/Roll/Pitch: 1.0° rms (static) 0.5° rms (dynamic)
Follow Up	45°/sec
Heave Accuracy	σ5cm
Timing	(1PPS Accuracy: 50µs (SCX-21 only)
Settling Time	60 seconds approx.
Position Accuracy	
GPS:	5m approx. (2 drms, HDOP < 4)
MSAS:	4m approx. (2 drms, HDOP < 4)
WAAS:	3m approx. (2 drms, HDOP < 4)
Position Fix Time	50 seconds approx.
Update Interval	
Attitude:	50 Hz MAX
Position:	10 Hz MAX
Ship Speed Accuracy	
SOG:	0.02 kn rms (tracking satellites 5 or more) 0.2 kn rms (tracking satellites 3 or more)
VBW:	0.02 kn rms (tracking satellites 5 or more, at antenna position) 0.08 kn rms (tracking satellites 5 or more, at another position) 2.0% of ship's speed or 0.2 kn, whichever is greater (tracking satellites 3 or 4)
Pressure	850 to 1100 hPa (temp range: 0°C to > 50°C), ± 1.0 hPa (offset adjustment)
Temperature	-20°C to > 55°C (relative wind: ≥ 4 kn), ± 2.0°C (offset adjustment)

**POWER SUPPLY**

Standard: 12-24 VDC: 0.2-0.1 A (4 LEN @ 9 VDC)

**INTERFACE**

Ports	
SCX-20:	1 Port NMEA2000
Input	059392/904, 060160/416/928, 061184, 065240, 126208/720, 130847
Output	059392/904, 060928, 061184, 065280, 126208/464/720/992/993/996/998, 127250/251/252/257/258, 129025/026/029/538/539/540, 130310/312/314/316/577/578/816/817/818/819/822/823, 130833/834/842/843/845/846/847
SCX-21:	3 Ports NMEA0183, Tx 3 Ch, Rx 2 Ch 1 Port PPS, RS-485, rising edge detecting

Data Sentences	
Input:	AAM*, APB*, BOD*, BWC*, BWR*, RMB*, TLL*, XDR, XTE*
Output:	AAM*, APB*, BOD*, BWR*, DTM, GGA, GLL, GNS, GSA, GSV, HDG, HDT, HRM, POS, RMB*, RMC, ROT, THS, TLL*, VBW, VTG, XTE*, ZDA GPatt, GPpve, GPimu, pidat, SDmrk*, GPmvs, hdcom

P Sentences \* : GP-39 REQUIRED

**ENVIRONMENTAL CONDITIONS**

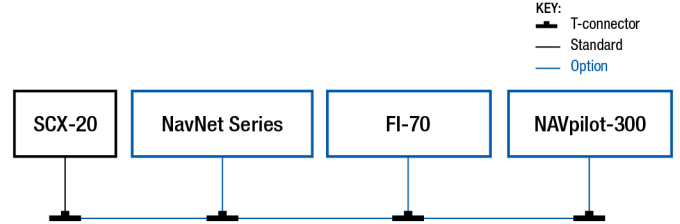
Ambient Temperature:	-25°C to +55°C (storage: -30°C to 70°C)
Relative Humidity:	95% or less at +40°C
Degree of Protection:	IP56

**EQUIPMENT**

Cable Assembly	SCX-20: FRU-NMEA-PMMFF cable (6m) SCX-21: FRU-CF-F cable (15m) SCX-20: Roof or Pole Mount SCX-21: Pole Mount ONLY
Standard	SCX-21: Pole Mount ONLY
Optional Supply	Installation materials, spare parts
Interface Unit:	SCX-20: FI-70 SCX-21: GP-39

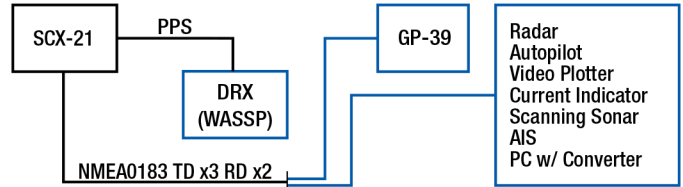
**INTERCONNECTION DIAGRAM**

NMEA2000® Network Configuration:



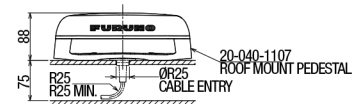
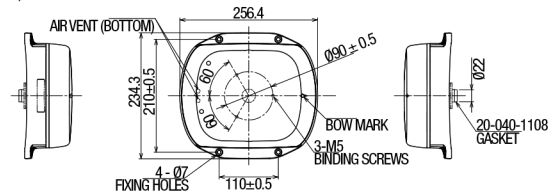
KEY:  
 T-connector  
 Standard  
 Option

NMEA0183 Network Configuration:

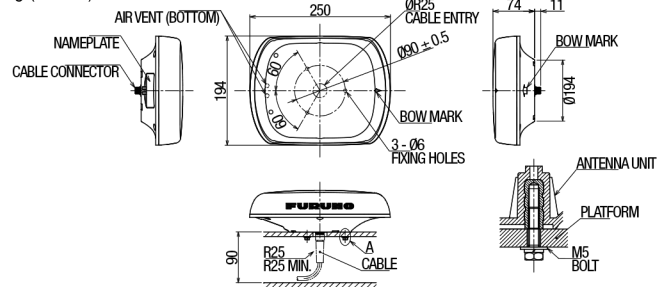


**UNIT DIAGRAMS**

SCX-20 w/ roof mount  
1.4 kg (3.0 lbs)

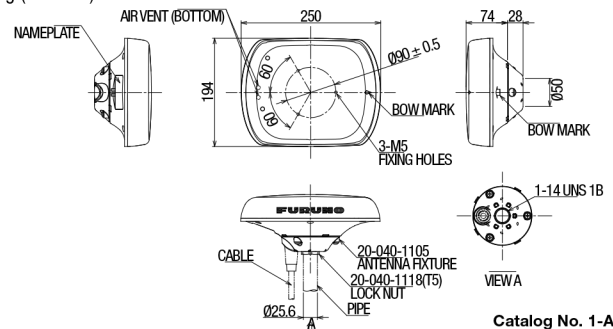


SCX-20 w/o mount  
1.0 kg (2.2 lbs)



DETAIL FOR A (SCALE: 1/1)

SCX-20/21 w/ pole mount  
1.2 kg (2.64 lbs)



Catalog No. 1-A-19113SK  
Rev. B  
CA000001393

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