

SPECIFICATIONS OF SSB RADIOTELEPHONE FS-1575

1 MF/HF DIGITAL RADIOTELEPHONE

1.1 GENERAL

- 1.1.1 Communication system Semi-duplex or simplex
- 1.1.2 Class of emission J3E: Telephone
F1B (J2B): DSC and NBDP
H3E: reception only
A1A, F3C: requires settings for communications
- 1.1.3 Number of channel User programmable: 256 TX/RX pairs
All ITU channels incorporated (include DSC/NBDP), SSB, TLX, CW
- 1.1.4 Warming up 1 minute approx. (oven 15 minutes approx.)

1.2 TRANSMITTER

- 1.2.1 Frequency range 1,605 kHz to 27.5 MHz (100 Hz step)
- 1.2.2 RF output power MF/HF: 150 W_{pep}
- 1.2.3 Frequency stability ±10 Hz
- 1.2.4 MIC in sensitivity 1 kHz, 94 dBA maximum power: -9 dB to -3 dB
- 1.2.5 Line in sensitivity 1 kHz, -16 dBm maximum power: -9 dB to -3 dB
- 1.2.6 Audio frequency range 350 Hz to 2.7 kHz (within 6 dB)

1.3 RECEIVER

- 1.3.1 Receiving system Double-conversion superheterodyne
- 1.3.2 Frequency range 100 kHz-29,999.99 kHz (10 Hz step)
- 1.3.3 Sensitivity (SINAD 20 dB)

Frequency Range	J3E
100 kHz to 300 kHz	35 dB μ V
300 kHz to 1.6 MHz	25 dB μ V
1.6 MHz to 4.0 MHz	13 dB μ V
4.0 MHz to 30 MHz	7 dB μ V

- 1.3.4 Intermediate frequency 1st: 53.964 MHz, 2nd: 36 kHz
- 1.3.5 Spurious response Better than 60 dB
- 1.3.6 Audio output power Speaker: 3 W/4 ohm
Handset: 10 mW/150 ohm
Line output: 0 dBm/600 ohm
- 1.3.7 Standard features AGC, Noise Blanker, Voice-activated squelch, Noise reduction
Notch filter, Attenuator

2 DSC/WATCH KEEPING RECEIVER

2.1 DIGITAL SELECTIVE CALLING

- 2.1.1 Frequency shift Mark: F-85Hz, Space: F+85 Hz (F: assigned frequency)
- 2.1.2 Baud rate 100 bps ± 30 × 10⁻⁶
- 2.1.3 Protocol Complies with ITU-R Rec.493-13, 541-9
- 2.1.4 Modulation FSK

2.2 DSC/WATCH RECEIVER (DISTRESS)

- 2.2.1 Frequency range 2187.5/ 8414.5 and 4207.5/ 6312/12577/16804.5 kHz
- 2.2.2 Class of emission F1B (J2B)
- 2.2.3 Antenna impedance 50 ohm
- 2.2.4 Sensitivity 0 dB μ V or less
- 2.2.5 Intermediate frequency 1st: 40.464 MHz, 2nd: 36 kHz
- 2.2.6 Frequency stability \pm 10 Hz
- 2.2.7 Output power for preamp 12 VDC: 0.15 A max.
- 2.2.8 Spurious response Better than 60 dB

2.3 DSC/WATCH RECEIVER (GENERAL FREQUENCY, OPTION)

- 2.3.1 Frequency range 1605 kHz to 27.5 MHz
- 2.3.2 Class of emission F1B (J2B)
- 2.3.3 Antenna impedance 50 ohm
- 2.3.4 Sensitivity 0 dB μ or less
- 2.3.5 Intermediate frequency 1st: 44.964 MHz, 2nd: 36 kHz
- 2.3.6 Output power for preamp 12 VDC: 0.15 A max.
- 2.3.7 Spurious response Better than 60 dB

3 NBDP FUNCTION (OPTION)

- 3.1 Communication mode ARQ, FEC
- 3.2 Protocol ITU-R M625-3, M476-5, M490, M491-1, M492-6
- 3.3 Modulation FSK

4 CONTROL UNIT

- 4.1 Display system 4.3-inch color dot matrix
- 4.2 Pixel 480 x 272 dots
- 4.3 Brilliance 16 steps (off to maximum brightness)
- 4.4 Built-in speaker 4 ohms
- 4.5 Alarm volume 80 to 85 dB(A)
- 4.6 Visible distance 0.7 m nominal

5 ANTENNA COUPLER

- 5.1 Tuning system CPU controlled fully automatic tuning system
- 5.2 Frequency range 1605 kHz to 27.5 MHz
- 5.3 Input impedance 50 ohm
- 5.4 Antenna 10 m to 18 m wire or 10 m whip, or
8 m whip + horizontal feeder 2m or more
- 5.5 Tuning time Within 15 seconds

6 TERMINAL UNIT (OPTION)

- 6.1 Display 10.4" color TFT LCD, 800 x 600 dots (SVGA)
- 6.2 Brilliance 11 steps
- 6.3 External memory SD card: 2GB max. or SDHC card: 32GB max.
(SDHC card: formatted and recognized as a 2GB card)
- 6.4 Keyboard interface USB2.0, 1.5Mbps
- 6.5 Visible distance 0.7 m nominal

7 INTERFACE

- 7.1 Serial data
 - Format IEC 61162-1 Ed.4 (2010-11)
 - Sentences
 - Input ACK, ACN, GGA, GLL, GNS, HBT, RMC, ZDA
 - Output ALC, ALF, ALR, ARC, DSC, DSE, HBT
- 7.2 LAN
 - Physical format Ethernet 10Base-T/100Base-TX, RJ45 connector
 - Data format IEC61162-450
 - Transmission group
 - Input MISC (TGTD, NAVD, PROP)
 - Output Arbitrary (default: RCOM)
 - Sentences
 - Input ACK, ACN, HBT (GGA, GLL, GNS, RMC, ZDA)
 - Output ALF, ALC, ALR, ARC, HBT
 - Other network function Ping, SNMP, Syslog, FURUNO Management Protocol

8 POWER SUPPLY

- 8.1 Transceiver/control unit 24 VDC: 5 A (RX), 20 A max. (TX)
Emergency battery use: 15A max. (TX)
- 8.2 Terminal unit (option) 12-24 VDC: 0.5-0.3 A
- 8.3 Printer (PP-520, option) 24 VDC: 1 A
- 8.4 AC/DC power supply unit (PR-300, option)
100/110/200/220 VAC, 1 phase, 50/60 Hz

9 ENVIRONMENTAL CONDITION

- 9.1 Ambient temperature
 - Antenna coupler -25°C to +55°C
 - Indoor units -15°C to +55°C
- 9.2 Relative humidity 93% or less at 40°C
- 9.3 Degree of protection
 - Antenna coupler IP56
 - Transceiver unit IP22 (bulkhead mount only)
 - Terminal unit IP20 (IP22: option required)
 - Control unit IP20 (IP22: option required)
- 9.4 Vibration IEC60945 Ed.4

10 COATING COLOR

- 10.1 Antenna coupler N9.5 (white)
- 10.2 Transceiver/control unit N3.0