SGS10-D31

Main Functions

Dual Modes (Analog + Digital): SGS10-D31 can operate in either analog or digital mode. It is compatible with the prevalent analog system, ensuring a smooth analog-to-digital transition.

Versatile Voice Calls: Intelligent signaling of SGS10-D31 supports various voice call types, including Private Call, Group Call, All Call and Emergency Call.

Vibrate (Optional): This feature is helpful in reminding you of the reception of any Private call, Call Alert or Text Message under noisy or low-volume conditions.

Various Analog Signaling Types: SGS10-D31 supports various analog signaling (DTMF Encode, CTCSS /CDCSS, 2-Tone, 5-Tone and QDC-1200), provides higher function expansion capacity.

IP Multi-site Connect and Roaming: SGS10-D31 supports communication with any other terminals as well as smooth Roaming within IP Multi-site Connect System.

Advanced Features (Optional): SGS10-D31 supports various optional advanced features including Man Down, Bluetooth and Voice Recording.

Secure Communication: SGS10-D31 provides high-level digital encryption utilizing advanced 256-bit algorithm.





SGS10-D31



Specifications

Specifications	
	General
Frequency Range	VHF:136-174MHz
, , ,	UHF: 350~400MHz: 400~470MHz;
	450~520MHz
Channel Capacity	1024(64 Zones×16 Channels)
Channel Spacing	25kHz (Digital) 25/20/12.5kHz (Analog)
Operating Voltage	7.4 V
Battery	3000mAh
Battery Life	Analog: Above 11 Hours
(5-5-90 Duty Cycle, Hight TX Powe	er) Digital: Above 15 Hours
Frequency Stability	± 1.0ppm
Antenna Impedance	50Ω
Dimensions(H×W×L)	130 × 55 × 34mm
Weight	320g
	Receiver
Sensitivity (Analog)	0.22μV (12dB SINAD) / 0.25μV (Typical)
	(12dB SINAD)
Sensitivity(Digital)	0.25μV/BER 5%
Intermodulation	≥ 65dB
S/N	40dB @ 12.5 kHz / 43dB @ 20kHz /
	45dB @ 25 kHz
Rated Audio Power Output	1.5 W
Rated Audio Distortion	≤ 3%
Audio Response	+1~-3dB
Conducted Spurious Emission	<-57dBm
	Transmitter
RF Power Output	UHF High Power:4W / Low Power:1W
	VHF High Power:5W / Low Power:1W
FM Modulation	141/4F2F @ 12 FH F /141/4F2F @ 20H F
	11KΨF3E @ 12.5KHZ /14KΨF3E @ 2UKHZ
	16KΦF3E @ 25kHz
4FSK Digital Modulation	11КФF3E @ 12.5kHz /14КФF3E @ 20kHz 16КФF3E @ 25kHz 12.5kHz Data Only: 7К60FXD /
	16КФF3E @ 25kHz
	16КФF3E @ 25kHz 12.5kHz Data Only: 7К60FXD /
4FSK Digital Modulation	16KΦF3E @ 25kHz 12.5kHz Data Only: 7K60FXD / 12.5kHz Data & Voice: 7K60FXW
4FSK Digital Modulation Conducted/Radiated Emission	16KΦF3E @ 25kHz 12.5kHz Data Only: 7K60FXD / 12.5kHz Data & Voice: 7K60FXW ≤-36dBm(<1GHz)/-30dBm(>1GHz)
4FSK Digital Modulation Conducted/Radiated Emission	16KΦF3E @ 25kHz 12.5kHz Data Only: 7K60FXD / 12.5kHz Data & Voice: 7K60FXW ≤-36dBm(<1GHz)/-30dBm(>1GHz) ≤2.5kHz @ 12.5kHz/≤4kHz @ 20kHz/
4FSK Digital Modulation Conducted/Radiated Emission Modulation Limiting	16KΦF3E @ 25kHz 12.5kHz Data Only: 7K60FXD / 12.5kHz Data & Voice: 7K60FXW ≤-36dBm(<1GHz)/-30dBm(>1GHz) ≤2.5kHz @ 12.5kHz/≤4kHz @ 20kHz/ ≤5kHz @ 25kHz
4FSK Digital Modulation Conducted/Radiated Emission Modulation Limiting	16KΦF3E @ 25kHz 12.5kHz Data Only: 7K60FXD / 12.5kHz Data & Voice: 7K60FXW ≤-36dBm(<1GHz)/-30dBm(>1GHz) ≤2.5kHz @ 12.5kHz/≤4kHz @ 20kHz/ ≤5kHz @ 25kHz 40dB @ 12.5kHz / 43dB @ 20kHz /
4FSK Digital Modulation Conducted/Radiated Emission Modulation Limiting FM Noise	16KΦF3E @ 25kHz 12.5kHz Data Only: 7K60FXD / 12.5kHz Data & Voice: 7K60FXW ≤-36dBm(<1GHz)/-30dBm(>1GHz) ≤2.5kHz @ 12.5kHz/≤4kHz @ 20kHz/ ≤5kHz @ 25kHz 40dB @ 12.5kHz / 43dB @ 20kHz / 45dB @ 25kHz
4FSK Digital Modulation Conducted/Radiated Emission Modulation Limiting FM Noise Adjacent Channel Power	16KΦF3E @ 25kHz 12.5kHz Data Only: 7K60FXD / 12.5kHz Data & Voice: 7K60FXW ≤-36dBm(<1GHz)/-30dBm(>1GHz) ≤2.5kHz @ 12.5kHz/≤4kHz @ 20kHz/ ≤5kHz @ 25kHz 40dB @ 12.5kHz / 43dB @ 20kHz / 45dB @ 25kHz 60dB@12.5kHz/70dB@20/25kHz
4FSK Digital Modulation Conducted/Radiated Emission Modulation Limiting FM Noise Adjacent Channel Power Audio Distortion	16KΦF3E @ 25kHz 12.5kHz Data Only: 7K60FXD / 12.5kHz Data & Voice: 7K60FXW ≤-36dBm(<1GHz)/-30dBm(>1GHz) ≤2.5kHz @ 12.5kHz/≤4kHz @ 20kHz/ ≤5kHz @ 25kHz 40dB @ 12.5kHz / 43dB @ 20kHz / 45dB @ 25kHz 60dB@12.5kHz/70dB@20/25kHz ≤3%
4FSK Digital Modulation Conducted/Radiated Emission Modulation Limiting FM Noise Adjacent Channel Power Audio Distortion Frequency Stability Digital Vocoder Type Digital Protocol	16KΦF3E @ 25kHz 12.5kHz Data Only: 7K60FXD / 12.5kHz Data & Voice: 7K60FXW ≤-36dBm(<1GHz)/-30dBm(>1GHz) ≤2.5kHz @ 12.5kHz/≤4kHz @ 20kHz/ ≤5kHz @ 25kHz 40dB @ 12.5kHz / 43dB @ 20kHz / 45dB @ 25kHz 60dB@12.5kHz/70dB@20/25kHz ≤3% ±1.0ppm AMBE 3000++ ETSI-TS102 361-1,-2,-3
4FSK Digital Modulation Conducted/Radiated Emission Modulation Limiting FM Noise Adjacent Channel Power Audio Distortion Frequency Stability Digital Vocoder Type Digital Protocol	16KΦF3E @ 25kHz 12.5kHz Data Only: 7K60FXD / 12.5kHz Data & Voice: 7K60FXW ≤-36dBm(<1GHz)/-30dBm(>1GHz) ≤2.5kHz @ 12.5kHz/≤4kHz @ 20kHz/ ≤5kHz @ 25kHz 40dB @ 12.5kHz / 43dB @ 20kHz / 45dB @ 25kHz 60dB@12.5kHz/70dB@20/25kHz ≤3% ±1.0ppm AMBE 3000++ ETSI-TS102 361-1,-2,-3 mental Specifications
4FSK Digital Modulation Conducted/Radiated Emission Modulation Limiting FM Noise Adjacent Channel Power Audio Distortion Frequency Stability Digital Vocoder Type Digital Protocol Environ Operating Temperature	16KΦF3E @ 25kHz 12.5kHz Data Only: 7K60FXD / 12.5kHz Data & Voice: 7K60FXW ≤-36dBm(<1GHz)/-30dBm(>1GHz) ≤2.5kHz @ 12.5kHz/≤4kHz @ 20kHz/ ≤5kHz @ 25kHz 40dB @ 12.5kHz / 43dB @ 20kHz / 45dB @ 25kHz 60dB@12.5kHz/70dB@20/25kHz ≤3% ±1.0ppm AMBE 3000++ ETSI-TS102 361-1,-2,-3 mental Specifications -30°C~+60°C
4FSK Digital Modulation Conducted/Radiated Emission Modulation Limiting FM Noise Adjacent Channel Power Audio Distortion Frequency Stability Digital Vocoder Type Digital Protocol Environ Operating Temperature Storage Temperature	16KΦF3E @ 25kHz 12.5kHz Data Only: 7K60FXD / 12.5kHz Data & Voice: 7K60FXW ≤-36dBm(<1GHz)/-30dBm(>1GHz) ≤2.5kHz @ 12.5kHz/≤4kHz @ 20kHz/ ≤5kHz @ 25kHz 40dB @ 12.5kHz / 43dB @ 20kHz / 45dB @ 25kHz 60dB@12.5kHz/70dB@20/25kHz ≤3% ±1.0ppm AMBE 3000++ ETSI-TS102 361-1,-2,-3 mental Specifications -30°C~+60°C -40°C~+85°C
4FSK Digital Modulation Conducted/Radiated Emission Modulation Limiting FM Noise Adjacent Channel Power Audio Distortion Frequency Stability Digital Vocoder Type Digital Protocol Environ Operating Temperature	16KΦF3E @ 25kHz 12.5kHz Data Only: 7K60FXD / 12.5kHz Data & Voice: 7K60FXW ≤-36dBm(<1GHz)/-30dBm(>1GHz) ≤2.5kHz @ 12.5kHz/≤4kHz @ 20kHz/ ≤5kHz @ 25kHz 40dB @ 12.5kHz / 43dB @ 20kHz / 45dB @ 25kHz 60dB@12.5kHz/70dB@20/25kHz ≤3% ±1.0ppm AMBE 3000++ ETSI-TS102 361-1,-2,-3 mental Specifications -30°C~+60°C -40°C~+85°C IEC 61000-4-2 (Level 4) / ±8kV (Contact)
4FSK Digital Modulation Conducted/Radiated Emission Modulation Limiting FM Noise Adjacent Channel Power Audio Distortion Frequency Stability Digital Vocoder Type Digital Protocol Environt Operating Temperature Storage Temperature ESD	16KΦF3E @ 25kHz 12.5kHz Data Only: 7K60FXD / 12.5kHz Data & Voice: 7K60FXW ≤-36dBm(<1GHz)/-30dBm(>1GHz) ≤2.5kHz @ 12.5kHz/≤4kHz @ 20kHz/ ≤5kHz @ 25kHz 40dB @ 12.5kHz / 43dB @ 20kHz / 45dB @ 25kHz 60dB@12.5kHz/70dB@20/25kHz ≤3% ±1.0ppm AMBE 3000++ ETSI-TS102 361-1,-2,-3 mental Specifications -30°C~+60°C -40°C~+85°C IEC 61000-4-2 (Level 4) / ±8kV (Contact) ±15kV (Air)
4FSK Digital Modulation Conducted/Radiated Emission Modulation Limiting FM Noise Adjacent Channel Power Audio Distortion Frequency Stability Digital Vocoder Type Digital Protocol Environt Operating Temperature Storage Temperature ESD U.S. Military Standard	16KΦF3E @ 25kHz 12.5kHz Data Only: 7K60FXD / 12.5kHz Data & Voice: 7K60FXW ≤-36dBm(<1GHz)/-30dBm(>1GHz) ≤2.5kHz @ 12.5kHz/≤4kHz @ 20kHz/ ≤5kHz @ 25kHz 40dB @ 12.5kHz / 43dB @ 20kHz / 45dB @ 25kHz 60dB@12.5kHz/70dB@20/25kHz ≤3% ±1.0ppm AMBE 3000++ ETSI-TS102 361-1,-2,-3 mental Specifications -30°C~+60°C -40°C~+85°C IEC 61000-4-2 (Level 4) / ±8kV (Contact) ±15kV (Air) MIL-STD-810 C/D/E/F/G
4FSK Digital Modulation Conducted/Radiated Emission Modulation Limiting FM Noise Adjacent Channel Power Audio Distortion Frequency Stability Digital Vocoder Type Digital Protocol Environt Operating Temperature Storage Temperature ESD U.S. Military Standard Dust & Water Protection	16KΦF3E @ 25kHz 12.5kHz Data Only: 7K60FXD / 12.5kHz Data & Voice: 7K60FXW ≤-36dBm(<1GHz)/-30dBm(>1GHz) ≤2.5kHz @ 12.5kHz/≤4kHz @ 20kHz/ ≤5kHz @ 25kHz 40dB @ 12.5kHz / 43dB @ 20kHz / 45dB @ 25kHz 60dB@12.5kHz/70dB@20/25kHz ≤3% ±1.0ppm AMBE 3000++ ETSI-TS102 361-1,-2,-3 mental Specifications -30°C~+60°C -40°C~+85°C IEC 61000-4-2 (Level 4) / ±8kV (Contact) ±15kV (Air) MIL-STD-810 C/D/E/F/G IP67 Standard
4FSK Digital Modulation Conducted/Radiated Emission Modulation Limiting FM Noise Adjacent Channel Power Audio Distortion Frequency Stability Digital Vocoder Type Digital Protocol Environt Operating Temperature Storage Temperature ESD U.S. Military Standard	16KΦF3E @ 25kHz 12.5kHz Data Only: 7K60FXD / 12.5kHz Data & Voice: 7K60FXW ≤-36dBm(<1GHz)/-30dBm(>1GHz) ≤2.5kHz @ 12.5kHz/≤4kHz @ 20kHz/ ≤5kHz @ 25kHz 40dB @ 12.5kHz / 43dB @ 20kHz / 45dB @ 25kHz 60dB@12.5kHz/70dB@20/25kHz ≤3% ±1.0ppm AMBE 3000++ ETSI-TS102 361-1,-2,-3 mental Specifications -30°C~+60°C -40°C~+85°C IEC 61000-4-2 (Level 4) / ±8kV (Contact) ±15kV (Air) MIL-STD-810 C/D/E/F/G



Accessory List

Standard Accessories

- Antenna
- Li-ion Battery
- Charge Adapter
- Desktop Charger
- Belt Clip
- Hand Strap

Optional Accessories

- Earphone
- Remote Microphone
- Programming Cable
- Leather Case



Dual Modes With analog and digital modes.



Software Upgradeable more further features



Voice Recording Supports 80/160h of recording.



Secure communication with analog/digital voice encryption.



Compliant with MIL-STD-810 C/D/E/F/G and IP67 standards.



Multiple Analog Signaling CTCSS, CDCSS, DTMF, 2-Tone, 5-Tone, QDC1200.



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