

51LT ES Series Portable Radio

700/800 MHz • VHF • UHF

KEY FEATURES & BENEFITS

- ▶ Display and 7 programmable keys
- ▶ 16 position channel selector
- ▶ 3 position rotary switch for zone control
- ▶ 48 channel/talkgroups standard with 128 optional
- ▶ Supports MDC-1200 and GE-Star Signaling
- ▶ Emergency button
- ▶ Menu function
- ▶ Lithium Ion battery is standard, 5 oz. lighter than Nickel Metal Hydride
- ▶ 5100 ES Series compatible battery, chargers and audio accessories
- ▶ Durable polycarbonate housing provides exceptional strength in a lightweight package
- ▶ Easy radio programming and feature updating using EFJohnson's PC Configure™ software

Extensive Accessory Suite

- ▶ Complete line of accessories including speaker microphones, headsets, surveillance kits, batteries, chargers, and carrying apparatus. Visit our website for the *EFJohnson Subscriber Accessories Catalog!*



Slim profile and 5 oz. lighter with standard Lithium Ion battery.



First-responder interoperability, P25 compliant, high-tier hardware... at an affordable price.

The 51LT ES Portable Radio from EF Johnson Technologies is durable, lightweight, and versatile. The 51LT ES is ideal for agencies with a limited budget, who are seeking a simple solution to P25 compliance. The 51LT ES offers crisp and powerful digital audio with the AMBE +2 vocoder and Project 25 conventional capability in every radio. Also included is a choice between Project 25 trunked or SMARTNET®/ SmartZone® trunked capability. If you need a straightforward portable radio that is flexible and interoperable, then make the 51LT ES your clear product choice.

▶ Project 25 Compliance

Supports Project 25 CAI (Common Air Interface) and Project 25 trunked system protocols.

▶ SMARTNET®/ SmartZone® Interoperability

EFJohnson is the only supplier licensed to support both analog and digital SMARTNET and SmartZone trunking protocols.

▶ AMBE+2 Vocoder for Outstanding Voice Quality and Noise Reduction

Hear the Difference! EFJohnson is one of the only radio manufacturers with a full implementation of this second generation digital vocoder (AMBE+2), P25 preferred vocoder.

SMARTNET® Licensed Since 1994 SmartZone®

AMBE+2
ENHANCED DIGITAL VOCODER



EFJohnson
TECHNOLOGIES
We Respond.

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Typical Performance Specifications

GENERAL	700/800	VHF	UHF R1	UHF R2
Frequency Range	762–806 MHz 806–870 MHz	136–174 MHz	380–470 MHz	450–512 MHz
Channel Spacing	12.5 kHz, 25 kHz	12.5 kHz, 25 kHz	12.5 kHz, 25 kHz	12.5 kHz, 25 kHz
Maximum Frequency Separation	Full Bandsplit	Full Bandsplit	Full Bandsplit	Full Bandsplit
FCC Type Acceptance Certification	ATH2425171	ATH2425111	ATH2425131	ATH2425141
Canada Type Certification	IC: 933B-2425171	IC: 933B-2425112	IC: 933B-2425131	IC: 933B-2425141
FCC Emissions Designators	11K0F3E, 16K0F3E, 14K0F3E, 8K10F1E, 8K10F1D	16K0F3E, 11K0F3E, 8K10F1E, 8K10F1D	16K0F3E, 11K0F3E, 8K10F1E, 8K10F1D	16K0F3E, 11K0F3E, 8K10F1E, 8K10F1D
Input Voltage	7.2V			
Dimensions (w/o antenna) (HxWxD)	6.7" x 2.52" x 1.8" (6.4 cm x 17.0 cm x 4.6 cm)			
Weight (without standard battery)	13 ounces			
Case	Polycarbonate—black/blue			
Temperature Range	–30°C to +60°C			
Vocoder	Enhanced Full-Rate Digital Vocoder (AMBE+2) Project 25			

TRANSMITTER

RF Power Output	2.5/1 W (700 MHz), 3/1 W (800 MHz)	5/1 W	4/1 W	4/1 W
Frequency Stability (–30°C to +60°C)	±1.5 ppm	±1.5 ppm	±1.5 ppm	±1.5 ppm
Modulation Limiting				
25 kHz channels	±5 kHz	±5 kHz	±5 kHz	±5 kHz
12.5 kHz channels	±2.5 kHz	±2.5 kHz	±2.5 kHz	±2.5 kHz
Emissions (Conducted/Radiated)	–75 dBc	–75 dBc	–75 dBc	–75 dBc
Audio Response	+1, –3dB	+1, –3dB	+1, –3dB	+1, –3dB
FM Hum and Noise				
25 kHz channels	–40 dB	–45 dB	–45 dB	–45 dB
12.5 kHz channels	–35 dB	–40 dB	–40 dB	–40 dB
Audio Distortion	2%	2%	2%	2%

RECEIVER

Audio Output Power	500 mW	500 mW	500 mW	500 mW
Frequency Stability (–30°C to +60°C)	±1.5 ppm	±1.5 ppm	±1.5 ppm	±1.5 ppm
Sensitivity				
Analog Mode: 12 dB SINAD	0.25 uV (–119 dBm)	0.25 uV (–119 dBm)	0.25 uV (–119 dBm)	0.25 uV (–119 dBm)
Digital Mode: 5% BER	0.25 uV (–119 dBm)	0.25 uV (–119 dBm)	0.25 uV (–119 dBm)	0.25 uV (–119 dBm)
Selectivity				
25 kHz channels	–75 dB	–75 dB	–75 dB	–75 dB
12.5 kHz channels	–63 dB	–63 dB	–63 dB	–63 dB
Intermodulation	–75 dB	–75 dB	–75 dB	–75 dB
Spurious & Image Rejection	–75 dB	–75 dB	–75 dB	–75 dB
FM Hum and Noise				
25 kHz channels	–40 dB	–40 dB	–40 dB	–40 dB
12.5 kHz channels	–35 dB	–35 dB	–35 dB	–35 dB
Audio Distortion	2%	2%	2%	2%

BATTERIES

Battery Type	Dimensions (HxWxD)	Weight	Approx. Life (5/5/90)
High Capacity Lithium Ion	6.5 x 2.3 x .78	8.1 ounces	UHF/VHF: Minimum 10 hours 700/800 MHz: Minimum 12 hours

ENVIRONMENTAL SPECIFICATIONS

Environment	Mil Spec	810F
	M	P
Low Pressure	500.4	II
High Temp.	501.4	I, II
Low Temp.	502.4	I, II
Temp. Shock	503.4	I
Solar Radiation	505.4	I
Rain/Blown Rain	506.4	I, III
Humidity	507.4	NA
Salt Fog	509.4	NA
Dust and Sand	510.4	I
Vibration	514.5	I(24)
Shock	516.5	I, IV

M=Method P=Procedure
Also meets equivalent superseded C, D, and E standards



Specifications are measured per TIA 102.CAA-B, TIA 102.CAAB-B and per TIA 603-C.

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Specifications subject to change without notice.

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