



SYN-TECH III P25 PORTABLE RADIO

Digital, Analog & Multi-mode Capability
255 Zones / 999 Channels with Tactical Grouping
Red Emergency Key
Password Protection
2.5 / 3.125 kHz Channel Stepping
Optional DES / AES Encryption
Optional Digital Trunking Capability
0.2 - 5 Watts, Selectable
Battery Level Indicator
Field Programmable
2- Tone / 5- Tone analog signaling
16 Hour Battery Life at 5 Watts
Meets or Exceeds Military Specifications 810C/ D / E / F
Dual Priority Scan
RSSI Indicator
136- 174 MHz VHF and 380- 512 MHz UHF bands
Tricolor LCD display with Function / Status Icons

Programmed Messages
SMS Messages
12- Key DTMF / PF keypad
High quality audio
Extensive user prompts, alerts and warnings
DSP based audio
Synthesized frequency control
PC controlled testing and alignment
CTCSS/CDCSS sub-audible signaling
Analog DTMF Encoding
Digital DTMF Regeneration
Conforms with TIA/EIA-603-A standard in Analog Mode
Conforms with TIA/EIA-102-CAAB standard in Digital Mode
Conforms with APCO25 EIA / TIA 102 standards
IP65 Water and Dust Protection
Battery Life 18 Hours (5-5-90 Duty Cycle)



- USER SELECTABLE CTCSS/ DCS/ NAC ON PER CHANNEL BASIS
- TRUE DTMF OUTPUT IN DIGITAL MODE (FOR REMOTE FUNCTIONS)
- DYNAMIC TACTICAL ZONE
- ZONE SELECTABLE CLONING AND/OR PROGRAMMING
- 8 PROGRAMMABLE SOFT KEYS
- DIGITAL DTMF
- EXCEPTIONAL BATTERY LIFE
- OPTIONAL AA CLAMHELL BATTERY PACK



SYN-TECH III P25 PORTABLE RADIO

GENERAL SPECIFICATIONS

Modulation	16K0F3E, 11K0F3E, 8K0D1E, 8K0F1E
Data Rate	P25 : 9.6 kb/s
Symbol Rate	P25 : 4.8 kb/s
Protocol	Project 25-CAI : 4.4 kb/s IMBE
Encryption Algorithms	DES-OFB, AES
Channel Capacity	255 zones / 999 channels
Operating Voltage Range	7.5 Vdc ± % 20 (6.0-9.0 Vdc)
Standby Current Drain (backlight off)	≤ 25 mA with Power Save ≤ 65 mA without Power Save
RX Current Drain	≤ 240 mA
TX Current Drain	≤ 1700 mA
Display	64x128 pixel LCD
Keypad	18 back lit
Dimensions with battery (HxWxD)	6x2.375x1.375 in (152x60x35 mm)
Weight with antenna and with battery	7.5 oz (212.6 g)
Battery Life (with 1800 mAh LI-ION Battery)	18 Hrs @ 5 W (5-5-90 Duty Cycle)
Clamshell with Alkaline Batteries	12 Hrs @ 2 W (10-10-80 Duty Cycle)

MILITARY STANDARDS 810C/D/E/F

	MIL-STD 810C	MIL-STD 810D	MIL-STD 810E	MIL-STD 810F
	Method Proc./ Cat.	Method Proc./ Cat.	Method Proc./ Cat.	Method Proc./ Cat.
Low Pressure	500.1 I	500.2 II	500.3 II	500.4 II
High Temperature	501.1 I, II	501.2 I/A1, II/A1	501.3 I/A1, II/A1	501.4 I/Hot, II/Hot
Low Temperature	502.1 I	502.2 I/C1, II/C2	502.3 I/C1, II/C2	502.4 I/C1, II/C2
Temperature Shock	503.1 -	503.2 I/A1-C2	503.3 I/A1-C2	503.4 I/Hot-C2
Solar Radiation	505.1 II	505.2 I	505.3 I	505.4 I
Rain	506.1 I, II	506.2 I, II	506.3 I, II	506.4 I, III
Humidity	507.1 II	507.2 II	507.3 II	507.4 -
Salt Fog	509.1 -	509.2 -	509.3 -	509.4 -
Sand and Dust	510.1 I	510.2 I, II	510.3 I, II	510.4 I, II
Vibration	514.2 VIII/F, XI/H	514.3 I/10, II/3	514.4 I/10, II/3	514.5 I/24, II/5
Shock	516.2 I, II	516.3 I, IV	516.4 I, IV	516.5 I, IV

RECEIVER SPECIFICATIONS

	VHF	UHF
Model	STP-105B	STP-404A/B
Frequency Range	136-174 MHz	380-470 MHz 450-512 MHz*
Frequency Separation	Full Bandsplit	Full Bandsplit
Channel Spacing	12.5 / 20 / 25 / 30 kHz	12.5 / 25 kHz
Frequency Step	2.5 / 3.125 kHz	2.5 / 3.125 kHz
Rated Audio Output Power *	500 mW / 8 Ω	500 mW / 8 Ω
Frequency Stability * (-30° C / +60° C; 25° C ref)	± 2.5 ppm	± 1.5 ppm
Analog Sensitivity * 12 dB SINAD	≤ -119 dBm	≤ -118 dBm
Digital Sensitivity ** 5% BER	≤ -120 dBm	≤ -119 dBm
1% BER	≤ -117 dBm	≤ -116 dBm
Adjacent Channel Rejection		
Analog 25 kHz channel *	≥ 73 dB	≥ 70 dB
Analog 12.5 kHz channel *	≥ 63 dB	≥ 60 dB
Digital 12.5 kHz channel **	≥ 63 dB	≥ 60 dB
Intermodulation Rejection *	≥ 73 dB	≥ 73 dB
Spurious Response Rejection *	≥ 73 dB	≥ 73 dB
Hum and Noise Ratio		
Analog 25 kHz channel *	≥ 50 dB	≥ 42 dB
Analog 12.5 kHz channel *	≥ 45 dB	≥ 36 dB
Digital 12.5 kHz channel **	≥ 50 dB	≥ 50 dB
Audio Distortion *	≤ 3 %	≤ 3 %

* Measured in the analog mode per EIA -603 under nominal conditions.
** Measured in the digital mode per TIA -102.CAAA under nominal conditions.

TRANSMITTER SPECIFICATIONS

	VHF	UHF
Model	STP-105B	STP-404A/B
Frequency Range	136-174 MHz	380-470 MHz 450-512 MHz*
Frequency Separation	Full Bandsplit	Full Bandsplit
Channel Spacing	12.5 / 20 / 25 / 30 kHz	12.5 / 25 kHz
Frequency Step	2.5 / 3.125 kHz	2.5 / 3.125 kHz
Rated RF Output Power *	0.2-5 W	0.2-5 W
Frequency Stability * (-30° C / +60° C; 25° C ref)	± 2.5 ppm	± 1.5 ppm
Modulation Limiting *		
Analog 25 kHz channel	± 5.0 kHz	± 5.0 kHz
Analog 12.5 kHz channel	± 2.5 kHz	± 2.5 kHz
C4FM Modulation Fidelity **	≤ 2 %	≤ 2 %
RMS Error	1800 ±100 Hz	1800 ±100 Hz
C4FM Deviation		
Spurious Emissions * (Conducted and Radiated)	≤ -70 dBc	≤ -70 dBc
Audio Frequency Response * (6 dB/Octave Pre-emphasis from 300 to 3000 Hz)	+1, -3 dB	+1, -3 dB
Hum and Noise Ratio		
Analog 25 kHz channel *	≥ 52 dB	≥ 46 dB
Analog 12.5 kHz channel *	≥ 46 dB	≥ 40 dB
Audio Distortion *	≤ 1 %	≤ 1 %

* Measured in the analog mode per EIA -603 under nominal conditions.
** Measured in the digital mode per TIA -102.CAAA under nominal conditions.

ENVIRONMENTAL SPECIFICATIONS

Operating Temperature Range	-30° C / +60° C
Storage Temperature Range	-40° C / +85° C
Humidity	% 95, 50° C
ESD	IEC 801-2KV
Water and Dust Protection	IP65, MIL-STD

* UHF 450-512 MHz PENDING APPROVAL BY THE FEDERAL COMMUNICATIONS COMMISSION. THIS DEVICE IS NOT, AND MAY NOT BE, OFFERED FOR SALE OR LEASE, OR SOLD OR LEASED UNTIL THE APPROVAL OF THE FCC HAS BEEN OBTAINED.



Speaker Microphone (ACC-720)

Light Weight Headset, In-Line PTT with Pigtail for Remote PTT Options (ACC-614)

Single Speaker Headset, In-Line PTT with Pigtail for Remote PTT Options (ACC-625)

Battery Pack, 1800mAh LI (ACC-1800)

Desk Top "Smart" Charger (ACC-451)

Programming Software (MRP-25) and Interface Cable (ACC-2501)

STP P25 Portable Alkaline Battery Clamshell (90-1015)

FOR MORE INFORMATION, CONTACT:



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Syn-Tech III P25 Portable Radio features and specifications subject to change without notice.

