

APPENDIX E:

Product Operational Description

The ATS System 1200 was designed to support two primary operating scenarios. The first scenario is direct transceiver-to-transceiver communications. In this scenario, communications occur between individual transceivers, using either Channel A or Channel B.

The Model 1225 Hand Held Transceiver is a push-to-talk, spread spectrum transceiver. It uses digitized audio. The digital data stream is scrambled before modulation for security. The combination of spread spectrum modulation and scrambled, digitized audio give the Model 1225 its low probability of detection and interception characteristics.

RF CHARACTERISTICS	
RF Channels	2, Crystal Controlled
Normal Mode	Transmit/Receive Channel A or B
Repeater Mode	Transmit Channel A, Receive on Channel B
TRANSMIT	
Power Output	900 mW
Emissions	
Spurious	-55 dBc
Out Of Band	-20 dBc
Freq. Stability	+100 ppm -25° C to +68° C
RECEIVE	
Sensitivity	-95 dBm
Selectivity	
Adjacent Channel	-65 dB
Spurious & Image	-85 dB
ANTENNA SYSTEM	
Antenna	½ Wavelength, flexible
RF Output	
Compatibility	50 Ω
AUDIO CHARACTERISTICS	
Frequency Response	± 6 dB, 300 - 5800 Hz
Microphone	Internal or external
Mic Audio Processing	Dual Time Constant AGC
Dynamic Range	55 dB, Minimum
Speaker	Internal or Remote
Rated Audio Output	400mW into 16 Ω (less than 5% distortion)
Remote Speaker/Mic	Model 1230-04

VOICE DATA SCRAMBLING	
Type	Synchronous Key Stream
Key Generation	External, Hand Held, Model 1260 Key Loader
Key Storage	Internal, non-volatile memory
Number of Keys	Two sets, Private and Common
USER CONTROL	
On-Off/Volume	
Channel (Mode) Select	
Code Select	
PTT	
INDICATORS	
Power/Battery Low	
Transmit	
POWER REQUIREMENTS	
Battery Pack	1200 mAh, Nickel Cadmium, rechargeable (1800 mAh available)
TEMPERATURE	
Operating	-25°C to +68°C
Storage	-40°C to +85°C
PHYSICAL DIMENSIONS	
Less Battery	6.25" x 2.75" x 1.50" (HxWxD), 1lbs.
With 1200 mAh Battery	8.625" x 2.75" x 1.5" (HxWxD), 1lbs.