

## Handheld Radio Spec Sheet

### Diagram

**Land Mobile Station (WAT 1)**

**Land Mobile Station (WAT 2)**

**Land Mobile Station (WAT 3)**

\*Link WAT 1 to WAT 2

\*Link WAT 1 to WAT 3

### Classification/Handling/CUI

Field	Value
CUI Instructions	SP-CTI-C
Limited Dissemination Controls	FEDCON - Federal Employees and Contractors Only
Controlled By:	Your organization
POC Name, Number, Email	Your Information
Business Identifiable Information (BII)	No

### Transmitter Information

Field	Value
Nomenclature	Walk and Talk Tx
Type of Nomenclature	Other
Manufacturer	RELM Communications, Inc.
Model Name and Number	Walk and Talk Tx
Potential Platform	Handheld device for First Responders
Transmitter Type	Communications
Output Device	Transistor
FCC Acceptance No.	K95LT20002
<b>Mode</b>	
<b>Earth Transmitter Frequency Emission Designator</b>	
Necessary Bandwidth	11.0 kHz
Emission Designator	11K0F3E
<b>Earth Transmitter Frequency</b>	
Lowest Tuned Frequency	136 MHz
Highest Tuned Frequency	160 MHz
Tuning Increment (Steps)	11 kHz
Minimum Required Frequency Separation	4 kHz
# of Frequencies Required for Operation	16
Method of Tuning	Synthesizer
<b>Earth Transmitter Frequency Emission Designator Modulation RF Fundamental Curve</b>	
Measured or Calculated	Measured

-3 dB Bandwidth / (Frequency Offset)	2 kHz
-20 dB Bandwidth / (Frequency Offset)	4.5 kHz
-40 dB Bandwidth / (Frequency Offset)	7.5 kHz
-60 dB Bandwidth / (Frequency Offset)	10 kHz
* Remember that the curve editor wants frequency offset as an input (freq offset = 1/2 bandwidth)	
Occupied Bandwidth	11 kHz
Measured or Calculated	Measured
<b>Transmitter Power</b>	
Power Type	Mean
Power Upper Limit	3 Watts
<b>Transmitter Frequency Emission Designator Modulation (Modulation Parameters)</b>	
Modulation Type	Analog
Maximum Modulation Frequency	3 kHz
Deviation Ratio	.833 kHz
Peak Frequency Deviation	2.499 kHz (Use Calculator button)
Frequency Stability (Tolerance)	2
Frequency Stability (Tolerance) Units	ppm
<b>Transmitter Harmonics</b>	
2nd Harmonic	-60 dB
3rd Harmonic	-60 dB
Other Harmonic	-60 dB
<b>Transmitter Spurious Emission Curve</b>	
Spurious Level Attenuation	-60 dB

Receiver Information	
Field	Value
Nomenclature	Walk and Talk Rx
Type of Nomenclature	Other
Manufacturer	RELM Communications, Inc.
Model Name and Number	Walk and Talk Rx
Potential Platform	Handheld device for first responders
Receiver Type	Tuned Radio Frequency
Conducted Emission Level	-60 dBm
FCC Type Acceptance No.	K95LT20002
Emission Designator	11K0F3E
<b>Mode</b>	
<b>Receiver Frequency</b>	
Lowest Tuned Frequency	136 MHz
Highest Tuned Frequency	160 MHz
Tuning Increment (Steps)	11 kHz

Minimum Separation	4 khz
# of Frequencies Required for Operation	16
Tuning Method (Method of Tuning)	Synthesizer
Frequency Stability (Tolerance)	2
Frequency Stability (Tolerance) Units	ppm
<b>Receiver Frequency Emission Sensitivity</b>	
Sensitivity (Level)	-119 dBm
Performance Criteria (Criteria Type)	SINAD Signal-to-Noise and Distortion Ratio (dB)
Performance Value (Criteria Level)	10
Noise Figure	2 dB
Noise Temperature	169.6 K (use the calculator button)
<b>Receiver Frequency Emission Sensitivity IF Selectivity Curve</b>	
<b>1<sup>st</sup> stage</b>	
3 db Bandwidth / (Frequency Offset)	9 kHz
20 db Bandwidth / (Frequency Offset)	15 kHz
60 db Bandwidth / (Frequency Offset)	30 kHz
Measured or Calculated	Measured
IF Frequency	455 MHz
<b>2<sup>nd</sup> Stage</b>	
3 dB Bandwidth/ (frequency offset)	16 kHz
20 dB Bandwidth/ (frequency offset)	20 kHz
60 dB Bandwidth/ (frequency offset)	40 kHz
Measured or Calculated?	Measured
IF Frequency	0
<b>RF Selectivity</b>	
3 db Bandwidth / (Frequency Offset)	4.5 MHz
20 db Bandwidth / (Frequency Offset)	7.5 MHz
60 db Bandwidth / (Frequency Offset)	15 MHz
Measured or Calculated?	Measured
* Remember that the curve editor wants frequency offset as an input (frequency offset = 1/2 bandwidth)	
Image Rejection Level	NA
Spurious Rejection Level	NA
Intermod Rejection	75
Adjacent Channel Selectivity	60

Antenna Information	
Field	Value
<b>Antenna - Linear</b>	
Nomenclature	Walk and Talk Ant
Type of Nomenclature	Other

Model Name and Number	Walk and Talk Ant
Manufacturer	RELM Communications, Inc
Antenna Category	Linear
Antenna Type	Dipole
Antenna Lower Frequency Limit	136 MHz
Antenna Upper Frequency Limit	160 MHz
Antenna Main Beam Gain	0 dBi
Polarization	Linear
Antenna Horizontal Beamwidth	45 Degrees
Antenna Vertical Beamwidth	45 Degrees
1st Vertical Sidelobe Attenuation	NA
1st Horizontal Sidelobe Position	NA

NTIA General Information - Part 1	
Field	Value
Nomenclature	Walk and Talk
Type of Nomenclature	Other

STATIONS	
<b>Station 1</b>	
Field	Value
Station Name	WAT1
Station Description	Handheld unit used for communication with first
<b>Equipment Associated with Station*</b>	
Station Transmitters	Walk and Talk Tx
Station Receivers	Walk and Talk Rx
Station Antenna 1	Walk and Talk Ant
Location type:	Area/polygon
Approved Locations	MD – Andrews Airforce Base (Select from dropdown)
* You must add equipment to the station prior to navigating to Link/Selected Mode page	
<b>Station 3</b>	
Field	Value
Station Name	WAT2
Station Description	Handheld unit used for communication with first
<b>Equipment Associated with Station*</b>	
Station Transmitters	Walk and Talk Tx
Station Receivers	Walk and Talk Rx
Station Antenna 1	Walk and Talk Ant

Location Type:	Area/polygon
Approved Locations	MD – Aberdeen Proving Ground Milita
* You must add equipment to the station prior to navigating to Link/Selected Mode page	
<b>Station 3</b>	
<b>Field</b>	<b>Value</b>
Station Name	WAT3
Station Description	Handheld unit used for communication with first
<b>Equipment Associated with Station*</b>	
Station Transmitters	Walk and Talk Tx
Station Receivers	Walk and Talk Rx
Station Antenna 1	Walk and Talk Ant
Location Type:	Area/polygon
Approved Locations	MD – Army Chemical Center (select from dropdown)
* You must add equipment to the station prior to navigating to Link/Selected Mode page	

Link Information: WAT 1 to WAT 3	
<b>Field</b>	<b>Value</b>
Transmitter	Tx #1: (U) Walk and Talk Tx
Transmitter Antenna	Ant #1: (U) Walk and Talk Ant
Coupling Loss	
Receiver	Rx #1: (U) Walk and Talk Rx
Receiver Antenna	Ant #1 (U) Walk and Talk Ant
Radio Service/Station Class	Land Mobile / ML – Land mobile Land Mobile/ MLD – Telecommand Land Mobile
Identify Frequencies	Click the “Select in-Band Only”
Emission/Power	Walk and Talk Tx (check box)

Link Information: WAT 1 to WAT 2	
<b>Field</b>	<b>Value</b>
Transmitter	Tx #1: (U) Walk and Talk Tx
Transmitter Antenna	Ant #1: (U) Walk and Talk Ant
Coupling Loss	
Spectral Power Density	-48.8 dBw/Hz
Receiver	Rx #1: (U) Walk and Talk Rx
Receiver Antenna	Ant #1 (U) Walk and Talk Ant
Radio Service/Station Class	Land Mobile / ML – Land mobile Land Mobile/ MLD – Telecommand Land Mobile
Identify Frequencies	Select In-band Only (check box)
Emission/Power	(U) Walk and Talk Tx (check box)

**NTIA General Information - Part 2**

Field	Value
Stage of System Review	4 - operational
Target Application Approval Date	11/30/2023
Target Date for System Activation	4/30/2024
Target Date for System Termination	4/30/2034
Number of Units	45
System Description	System purpose and Concepts: This unit is a small, lightweight radio capable of providing two-way ground
NSEP Use	Yes
Information Transfer Requirement	Analog Voice information using analog modulation
Estimated Initial Cost (\$)	9,000
System Relationship and Essentiality	These radios will enable communication with first responders in the field during an emergency. They are the exclusive system intended in emergency circumstances
Replacement Information	Not Applicable
ITU Waiver	No

**Full Record Print**

Once completed, send your **Full Record Print** and **Training Survey** to [jbreman.ctr@ntia.gov](mailto:jbreman.ctr@ntia.gov) to receive credit for participating in the training program.