TRANSMITTER INFO	INPUT	UNIT
Nomenclature	SPEXER 2000 3D	
Manufacturer	HENSOLDT	
Platform Name	Advanced Naval Technology Exercise 2021	
Model Name and Number	SPEXER 2000 3D	
Transmitter Type	Fully Coherent Pulse-Doppler Radar	(Block 4, Transmitter Type on 1494 Transmitter page)
Filter Type (filter employed)	None	
FCC Acceptance Number		(Block 23, FCC Type Acceptance No. on 1494 Transmitter page)
Frequency Stability (+/-) or Tolerance	< 50 ppm	(Block 9, Frequency Tolerance on 1494 Transmitter page)
Frequency Stability Units	ppm	ppm
Output Device	Transitor	If other enter here
Tuning Method	Synthesizer	
Suppression of Harmonic	yes	
Radar or Communications?	Radar	
Installations	Tripod Mounted (man-deployable)	(Printed in block 3, Transmitter Installation on 1494 Transmitter page)
Power Type	Mean	
Power Lower Limit	30	Watts (W)
Power Upper Limit	300	Watts (W)
Cabling loss (in dB) if value shown is output of transmit	na	
Fixed Frequency if applicable	no	
Lowest Tuned Frequency if tunable	9.2	gigahertz (GHz)
Highest Tuned Frequency if tunable	10	gigahertz (GHz)
Tuning Increment	7.5	megahertz (MHz)
# of Frequencies Required for Operation	2	
Minimum Required Frequency Separation	9487.5 MHz and 9555.0 MHz	megahertz (MHz)
Frequency Blocking Indicator	yes	
Lowest Usable Channel	9.2	gigahertz (GHz)
Emission Designators	15MFXX	
Emission Digitized Spectrum Code	Other - See Remarks	
Occupied Bandwidth	15	megahertz (MHz)
Measured or Calculated?	Measured	
Spread Spectrum?	no	
If Yes List Spread Spectrum Type		
GPS Measurements		
If Spread Spectrum Type Is Direct Sequence	NA	
Spread Spectrum Chip Rate		
Information Data Rate		
Spread Spectrum Code Repition Rate		
Spread Spectrum Processing Gain		
If Spread Spectrum Type Is Frequency Hopped	NA	
Number of Frequency Hop Sets		
Number of Frequencies Per Hop Set		
Lowest Frequency in Hop Set		
Highest Frequency in Hop Set		
Frequency Hop Rate		
Frequency Hop Dwell Time		
Frequency Hop Pulses Per Dwell		
Spread Spectrum Processing Gain		
If Spread Spectrum Type Is Hybrid (Direct Sequence and Frequency Hopped)	NA	
Spread Spectrum Chip Rate		
Information Data Rate		
Spread Spectrum Code Repition Rate		
Number of Frequency Hop Sets		
Number of Frequencies Per Hop Set		
Lowest Frequency in Hop Set		
Highest Frequency in Hop Set		
Frequency Hop Rate		
Frequency Hop Dwell Time		
Frequency Hop Pulses Per Dwell		
Spread Spectrum Processing Gain		
Radar Type	Coded Pulse Radar	
Pulse Repetition Rate	~3.5	kilopulses/sec (kpps)
Pulse Rise Time	< 50	nanoseconds (ns)
Pulse Fall Time	< 90	nanoseconds (ns)
Pulse Width	< 30	microseconds (us)
Pulse Duty Cycle %	≤ 10%	
Modulation Type	Anaolg (AM, FM, or Phase)	
If Type is Pulse	NA	
Peak Deviation		
Transmission Bit Rate		
Pulse Width		
If Type is Digital	NA	
Digital Modulation Type		
Number of Digital States		
Transmission Bit Rate		
Digital Peak Deviation		
Digital Deviation Ratio		(Printed in block 17, Deviation Ratio on 1494 Transmitter page)
Digital Max. Modulation Frequency		
Digital Pulse Format		
If Type is Analog Modulation (AM, FM, or Phase)		
Peak Deviation	NA	
Deviation Ratio	NA	(Printed in block 17, Deviation Ratio on 1494 Transmitter page)
Maximum Modulation Frequency	15	megahertz (MHz)
Lowest Modulation Frequency	fixed	
Pseudorandom Code Period	NA	
Peak Frequency Deviation Index	NA	Enter the peak modulation index (deviation ratio) when using analog frequency or phase modulation
RMS Frequency Deviation	NA	Enter the RMS frequency deviation when frequency modulation (FM) is employed and the baseband consists of frequency-division multiplexed (FDM) channels or multiple subcarrier signals.
RMS Frequency Deviation Code	NA	
RMS Modulation Index	NA	Enter the RMS modulation index (deviation ratio) when analog frequency modulation (FM) or phase modulation (PM) is employed and the baseband consists of frequency-division multiplexed channels or multiple subcarrier signals.
Pulse Repetition Rate Lower Limit	2500	pulses/sec (pps)
Pulse Repetition Rate Upper Limit	3500	pulses/sec (pps)
Pulse Duration Lower Limit	1	microseconds (us)
Pulse Duration Upper Limit	27	microseconds (us)
RF Fundamental Curve		
Measured or Calculated?		
Freq Offset (Fo) and Level (dB)		
-3 dB		
-20 dB		
-25 dB		(Block 4, Transmitter Type on 1494 Transmitter page)
-40 dB		
-60 dB		
Harmonic Atteniuation (dB) Number		
2nd	< -60	dB (decibels)
3rd	< -80	dB (decibels)
Other		
Spurious Level	< -50	dB (decibels)

* If there are multiple tuning ranges and/or emission designators, please copy the above section (line 1 - 117), paste below and fill out the information for each tuning range and/or emission designators.

RECEIVER INFO	INPUT	UNIT
Nomenclature	SPEXER 2000 3D	
Manufacturer	HENSOLDT	
Platform name	Advanced Naval Technology Exercise 2021	
Model Name and Number	SPEXER 2000 3D	
Receiver Type	Superheterodyne receiver	(Block 4, Transmitter Type on 1494 Transmitter page)
FCC Acceptance Number		(Block 23, FCC Type Acceptance No. on 1494 Transmitter page)
Frequency Stability (+/-) or Tolerance	< 50 ppm	(Block 9, Frequency Tolerance on 1494 Transmitter page)
Frequency Stability Units	ppm	ppm
Image Rejection Level (If superhet.)		
Conducted Undesired Emissions		
Local Oscillator Tuned Indicator (If superhet.)		
Tuning Method	Synthesizer	
Maximum Bit Rate	NA	
Minimum Post Detection Frequency	NA	
Maximum Post Detection Frequency	NA	
Preselection Type	Band-pass filter	(Printed in block 11d, Preselection Type on 1494 Receiver page)
Fixed Frequency if applicable	NA	
Lowest Tuned Frequency if tunable	9200	megahertz (MHz)
Highest Tuned Frequency if tunable	10000	megahertz (MHz)
Tuning Increment	7.5	megahertz (MHz)
Emission Designators	15MFXX	
Performance Criteria		
Performance Value		
Sensitivity		
Noise Figure		
Noise Temperature		
Spurious Rejection Level		
Adjacent Channel Selectivity		
Intermodulation Rejection Level (If superhet.)		
		1st, 2nd & 3rd Harmonics
IF Selectivity Offser (If superhet.)		
-3 dB		
-20 dB		
-60 dB		
IF Frequency (If superhet.)		
1st		
2nd		
3rd		
RF Selectivity offset		
-3 dB	< 15	megahertz (MHz)
-20 dB	< 20	megahertz (MHz)
-60 dB	< 75	megahertz (MHz)
Preselection Type	Band-pass filter	

* If there are multiple tuning ranges and/or emission designators, please copy the above section (line 1 - 48), paste below and fill out the information for each tuning range and/or emission designators.

ANTENNA INFO	INPUT	UNIT
Nomenclature	SPEXER 2000 3D	
Manufacturer	HENSOLDT	
Model Name and Number	SPEXER 2000 3D	
Antenna Type Code	Phased-array	
Antenna Horizontal Beamwidth	2.4	degrees
Antenna Vertical Beamwidth	5.9	degrees
Antenna Lower Frequency Limit	9.2	gigahertz (GHz)
Antenna Upper Frequency Limit	10	gigahertz (GHz)
Polarization	Horizontal	
Antenna Main Beam Gain	< 35dBi	
Horizontal Scan Characteristics Type		Electronic Scan Sector - An antenna scan where the Antenna scan is through a predetermined angular region. The antenna typically does not physically move the scan is developed by sampling in a predetermined sequence a group of antenna elements, usually a network of dipoles or horns.
Horizontal Scan Speed (degrees per…)	8° to 256°	per second
Horizontal Scan Rate (scans per…)		per minute
Capable of Blanking	yes	
Horizontal Sector Total Degrees of Scan	120	
Vertical Scan Characteristics Type		Fixed - The antenna is fixed in position and does not provide a physical or electronic scan.
Vertical Scan Speed (degrees per...)	NA / instantanious with azimuth	
Vertical Scan Rate (scans per…)	NA / instantanious with azimuth	
Antenna Vertical Scan Maximum Elevation	15°	degrees
Antenna Vertical Scan Minimum Elevation	0°	degrees
Antenna Dish Diameter		
Antenna Horizontal Dimension	1000	millimeter (mm)
Antenna Vertical Dimension	700	millimeter (mm)
Number of Elements	56	
Number of Main Beams	≤8	