Why use the AN/SSQ-565
- A-size LFA source sonobuoy with GPS
- Designed for multistatic-active missions
- Supports monostatic sonar operations
- Over 400 Hz acoustic transmit bandwidth
- Continuous Active Sonar (CAS) mode
- Both US and UK GPS reporting modes
- ITAR-free Canadian design
- CAD or gravity launch
- 4 selectable depths

When to use the AN/SSQ-565
- When the threat is very quiet
- When multistatic operations are needed
- When monostatic operations are needed
- When a rich selection of ping waveforms is important
- When precise buoy location is important

The AN/SSQ-565 sonobuoy operates primarily as a high-power, low-frequency acoustic source for multistatic active sonar operations. Its transmit band is compatible with any standard sonobuoy, but is matched with our AN/SSQ-573. The Q-565 also provides a standalone omnidirectional passive receive capability with automatic gain control (AGC) for monostatic active sonar operations. The Q-565 incorporates a Command Signal Generator (CSG)/Command Function Select (CFS) compatible UHF downlink to control its operation after launch. It works with any aircraft capable of commanding any variant of the AN/SSQ-62E DICASS sonobuoy.

Q-565 offers commandable ping types over a 400 Hz bandwidth and the ability to operate at four different depths. The power source is a lithium sulfur dioxide battery pack with safety features to ensure voltage is not applied unless the buoy has been deployed into seawater. An on-board GPS receiver provides precise buoy position on the RF uplink. The Q-565 is air and sea launchable.

About the A-size AN/SSQ-565

Command Function Select (CFS):
- GPS format: US, and UK
- RF on/off and RF channel
- Depth (Go Deeper within depth family)
- Scuttle
- Full control of the sonar channel & ping type
  - FM: 1-4 s duration, up/down 100-400 Hz bandwidth
  - Seven CW ping frequencies: shaded 1-32 s duration
- Continuous Active Sonar mode (CW & FM)
- Capable of adding customer selected complex waveforms (factory-level change)

Command Signal Generator (CSG):
- Depth (Go Deeper within Depth family)
- Scuttle
- Ping control similar DICASS AN/SSQ-62E
  - FM: 1 s duration, up/down 100-400 Hz bandwidth
  - CW ping frequencies: 1, 2, 4 s duration

Sold to:

Maritime Systems
Technical Specifications
AN/SSQ-565

PHYSICAL CHARACTERISTICS
Diameter...........................................124 mm (4.875 in)
Length.................................................914 mm (36.00 in)
Weight (bare buoy)....................................14.4 kg (31.8 lbs)
C of G......................................................35.6 cm (14 in) from bottom end
Power Source...........................................Lithium sulfur dioxide battery
Ballistic coefficient.................................78.42 kg/m²
Sonobuoy Launch Container Compatible.........................LAU-126/A

ENGINEERING DATA
RF Frequency Range..............................136 MHz to 173 MHz
RF Command Receiver Format....................UHF-single channel
RF Transmitter Power Output........................1 Watt
RF Transmitter Channels..........................97 preselectable, with EFS display
RF Transmitter Control..............................Supports CFS commandable ON / OFF
Operating Depth.................................4 depths across 2 depth families selected by EFS
d1 (30, 60, 120 m), d2 (60, 120, 250 m)
Go Deeper Time...................................4 s delay plus average terminal velocity 2.5 m/s
Operating Life......................................Fixed 8 hours
Shelf Life..............................................5 years in sealed container
Unpacked Storage Life (minimum)...................90 days
Scuttling Time.....................................CFS and CSG commandable, Automatic after 8 hours
CSG Address Tone Signals.........................As per AN/SSQ-62E DICASS
Composite DIFAR Compatible Output Signal Consisting of
Baseband Omni.......................................1600 to 2000 Hz
Frequency Reference Pilot...........................7.5 kHz
Phase Pilot...........................................15 kHz
GPS Position Report Modes........................US, UK

ACOUSTIC CHARACTERISTICS
Transducer Array.................................Piezoelectric ceramic 8 element flexural disc
Transmit Bandwidth..............................1600 to 2000 Hz
Transmit Vertical Beamwidth...............10-13° (3 dB measured beamwidth)
Passive Receiver.................................Same directivity as transmit array
Command to Ping Latency........................1 sec
Pinging Capacity...............................Up to 200 ping seconds for < 7% duty cycle
Ping Types.........................................CAS, CW, FM Up, FM Down

CM WAVEFORMS

<table>
<thead>
<tr>
<th>Pulse Type</th>
<th>Amplitude Windowing</th>
<th>Sonar Channel</th>
<th>Minimum Sonar Power Output dB/μPa @ 1m</th>
<th>Duty Cycle</th>
</tr>
</thead>
<tbody>
<tr>
<td>CW (1 sec, 2 sec, 4 sec)</td>
<td>Hamming</td>
<td>A, C, E, F</td>
<td>212</td>
<td>7%</td>
</tr>
<tr>
<td>CW (8 sec, 16 sec, 32 sec)</td>
<td>Hamming</td>
<td>A-G</td>
<td>206</td>
<td>30%</td>
</tr>
<tr>
<td>CW (1 sec, 2 sec, 4 sec)</td>
<td>Tukey</td>
<td>A, C, E, F</td>
<td>212</td>
<td>7%</td>
</tr>
<tr>
<td>CW (8 sec, 16 sec, 32 sec)</td>
<td>Tukey</td>
<td>A-G</td>
<td>206</td>
<td>30%</td>
</tr>
<tr>
<td>CW (1 sec, 2 sec, 4 sec)</td>
<td>Boxcar</td>
<td>A, C, E, F</td>
<td>212</td>
<td>7%</td>
</tr>
<tr>
<td>CW (8 sec, 16 sec, 32 sec)</td>
<td>Boxcar</td>
<td>A-G</td>
<td>206</td>
<td>30%</td>
</tr>
<tr>
<td>FM Down (1 sec, 2 sec, 4 sec)</td>
<td>Bioxar</td>
<td>A-G</td>
<td>206</td>
<td>30%</td>
</tr>
<tr>
<td>CAS/CW</td>
<td>Bioxar</td>
<td>A-G</td>
<td>206</td>
<td>100%</td>
</tr>
<tr>
<td>CAS/FM</td>
<td>Bioxar</td>
<td>A-G</td>
<td>206</td>
<td>100%</td>
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</tbody>
</table>

FM WAVEFORMS

<table>
<thead>
<tr>
<th>Sonar Channel</th>
<th>Sonar Centre Frequency (Hz)</th>
<th>Nominal FM Bandwidth (Hz)</th>
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<tbody>
<tr>
<td>A</td>
<td>1601.85</td>
<td>400</td>
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<tr>
<td>B</td>
<td>1606.15</td>
<td>200</td>
</tr>
<tr>
<td>C</td>
<td>1605.56</td>
<td>200</td>
</tr>
<tr>
<td>D</td>
<td>1644.3</td>
<td>100</td>
</tr>
<tr>
<td>E</td>
<td>1750.00</td>
<td>100</td>
</tr>
<tr>
<td>F</td>
<td>1853.71</td>
<td>100</td>
</tr>
<tr>
<td>G</td>
<td>1957.41</td>
<td>100</td>
</tr>
</tbody>
</table>

Safety Features...........................................Battery thermal cut-out
Battery internal fusing
Pressure Relief valve
Safety interlock

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