The TESTEM FTS FTU is a mobile field test unit to check the functionality of the on board systems FTRD (flight termination receiver/decoder), which are part of the FTS flight termination system. It can be also used as small ground station unit for the close range. It's mounted into a yellow portable and lockable plastic case (water and dust proof according IP67) with handle.

The field test unit (FTU) contains:
- flight termination encoder, programmed to produce tone frequencies according to IRIG standard, tone combination user programmable
- UHF transmitter with user programmable center frequency (standard 395 to 460 MHz) and output power between 100 mW and 7 W
- LiPo Accupack 3,6 A / 14,8 V (option)
- LiPo Accu loader with integrated balancer (option)
- power supply unit able to adapt 115 to 230 V AC 50/60 Hz mains power
- control panel with programmed micro controller unit
- connections for powering, output for high power amplifier and RF output for antenna

The control panel shows:
- a key switch for System On.
- One blue illuminated push button for the commands Activate / Reset HPTX (option)
- Four horizontally lined illuminated push buttons for the commands:
  - NONE (green)
  - SAFE (green)
  - ARM (yellow)
  - TERM. = TERMINATE (red, cover protected)
- Four vertically lined yellow push buttons for the IRIG tones
- One backlighted LC display showing status of accu loader (option)
- Four vertically lined LEDs for:
  - System on / System ok / RF TX on (lightened when a tone or tone combination is sent) / Accu low (option)

Connections:
- HPTX control (8 pole rank connection jack) for control connection of high power amplifier (option)
- RF Out (N connection jack), output of the RF transmitter either to antenna or high power amplifier
- DC In (lockable car battery connection jack, male) for 3 pole Pin connector to load the LiPo accu from car battery 11,5 to 18 VDC (option)
- IEC socket for connection of AC line power 115 to 230 VAC, 50/60 Hz

Technical Data:

<table>
<thead>
<tr>
<th>Encoder section:</th>
<th>ESD protection:</th>
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</thead>
<tbody>
<tr>
<td>Encoder Type: digital tone encoder for up to 4 simultaneous tones, tone-on delay 400us, tone-off delay 200us</td>
<td>Peak Voltage (IEC 1000-4-2) ±8kV (contact discharge)</td>
</tr>
<tr>
<td>Analog Output section: isolated against all other signals, Analog Output Voltage 2Vpp (tones programmable). Optional 6-tone or 8-tone version available on request.</td>
<td>Peak Voltage (MIL 833-3015.7) ±15kV</td>
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<th>Digital I/O section</th>
<th>System Power:</th>
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</thead>
<tbody>
<tr>
<td>TONE-OFF Input Level Voltage -2 Vdc ... +0.9 dc, TONE-ON Input Level Voltage +3.5 Vdc ... +7 Vdc Status Output H = O.K. / L = warning/error</td>
<td>AC 115 to 230 VAC, 50/60 Hz</td>
</tr>
</tbody>
</table>

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<tr>
<th>System characteristics:</th>
<th>DC Car voltage 11,5 to 18 VDC (option)</th>
</tr>
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<tbody>
<tr>
<td>Isolation: isolated power supply input (digital GND &amp; signal return connected to case)</td>
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</tbody>
</table>

| Accu: LiPo Accu 3,6 A / 14,8 V (option) | Output power: 100 mW to 7 W RF / 50 Ohm output |

Technical changes may be done without notice