

## FTS FTU - Flight Termination System Field Test unit



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:

<p><u>Encoder section:</u>                  Encoder Type: digital tone encoder for up to 4 simultaneous tones, tone-on delay 400us, tone-off delay 200us                  Analog Output section: isolated against all other signals, Analog Output Voltage 2Vpp (tones programmable).                  Optional 6-tone or 8-tone version available on request.</p>	
<p><u>Digital I/O section</u>                  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</p>	<p><u>ESD protection:</u>                  Peak Voltage (IEC 1000-4-2) ±8kV (contact discharge)                  Peak Voltage (MIL 833-3015.7) ±15kV                  Peak Current (Supply Voltage) 100A (8/20µs)                  Peak Current (all other I/O pins) 20A (8/20µs)</p>
<p><u>System characteristics:</u>                  Isolation: isolated power supply input (digital GND &amp; signal return connected to case)</p>	<p><u>System Power:</u>                  AC 115 to 230 VAC, 50/60 Hz                  DC Car voltage 11,5 to 18 VDC (option)</p>
<p><u>Accu:</u> LiPo Accu 3,6 A / 14,8 V (option)</p>	<p><u>Output power:</u> 100 mW to 7 W RF / 50 Ohm output</p>