



## TRM 6020

V/UHF ECCM MANPACK TRANSCEIVER SERIES

- > **SATURN**
- > **Proprietary ECCM**
- > **Have Quick II**
- > **30 - 400 MHz**
- > **10 W AM - 15 W FM**
- > **External or embedded COMSEC**
- > **Lightweight**
- > **Compact and rugged**
- > **Vehicular version**
- > **GPS**

# TRM 6020

## DEVELOPED FOR CUSTOMIZED GROUND-TO-AIR AND SURFACE-TO-AIR COMMUNICATION NETWORK

- > TRA 6021:
  - Fixed Frequency, Have Quick, SATURN, etc.
- > TRA 6025:
  - Fixed Frequency, Have Quick, Proprietary ECCM, etc.
- > Manpack or vehicle-mounted configurations
- > Configuration with embedded GPS
- > Full range of ancillaries:
  - 2 Ni-Cd, Li, Li-Ion batteries
  - Whip antennas
  - Portable bag
  - Handset
  - Remote Control Unit
  - External booster
  - GPS

## GENERAL CHARACTERISTICS

<b>Frequency range</b>	30 to 87.975 MHz 108 to 173.975 MHz 225 to 399.975 MHz
<b>Channel spacing</b>	25 kHz, 8.33 kHz
<b>Frequency accuracy</b>	± 0.5 ppm, - 30° C to + 55° C
<b>Modulation type</b>	AM, FM, MSK, FSK
<b>Functions</b>	<b>Fixed frequency</b> Voice: clear / secure <b>ECCM</b> Voice: clear / secure Data: point-to-point, TDMA (option)
<b>ECCM</b>	Have Quick I and II (Stanag 4246) * SATURN (Stanag 4372) * Fast Frequency Hopping (FFH)
<b>COMSEC</b>	External KY 57 / KY 99 Proprietary embedded COMSEC
<b>Control</b>	Front panel
<b>Built-in-test</b>	Yes
<b>Power supply</b>	+ 24 VDC
<b>Autonomy</b>	14 hrs (1 mn Transmit, 9 mn Receive)
<b>MTBF</b>	4,000 hrs

## PHYSICAL

<b>Dimensions</b>	<b>(W x H x D)</b> 10.56 x 3.26 x 13 inches with battery box 268 x 83 x 330 mm
<b>Weight</b>	< 13.2 lbs (6 kg), without battery

\* NATO Clearance required for Non-NATO customer

## ENVIRONMENT

<b>Class</b>	MIL-STD 810 C, D, E
<b>Operating temperature range</b>	- 30° C to + 55° C
<b>Storage temperature range</b>	- 45° C to + 70° C
<b>Altitude</b>	15,000 ft
<b>Vibration, shock</b>	MIL-STD 810 C, D, E
<b>Humidity</b>	93 % relative at 40° C
<b>EMC</b>	MIL-STD 461 C
<b>Immersion</b>	1 m
<b>Sand and dust</b>	MIL-STD 810 E

## MAIN RECEIVER

<b>Sensitivity</b>	<b>AM</b>	- 103 dBm, 30 % modulation
	<b>FM</b>	- 113 dBm, ± 5.6 kHz deviation
	<b>SATURN</b>	- 103 dBm, 0.1 % BER
	<b>FFH</b>	- 103 dBm, 0.1 % BER
<b>Selectivity at 6 dB</b>	<b>NB 1</b>	± 3 kHz min (ATC 8.33)
	<b>NB 2</b>	± 10.5 kHz min (clear voice / NB secure voice, telegraphy, HQ)
	<b>WB 1</b>	± 20 kHz min (SATURN)
	<b>WB 2</b>	± 28 kHz min (WB secure voice, link 11, telegraphy, FFH)
<b>Squelch / Adjustment range</b>	<b>AM</b>	5 to 15 dB
	<b>FM</b>	10 to 16 dB

## GUARD RECEIVER

<b>Input</b>	Common to main receiver	
<b>Guard frequency</b>	<b>VHF</b>	121.500 MHz
	<b>UHF</b>	243.000 MHz
<b>Sensitivity</b>	-100 dBm, 30 % modulation	
<b>Selectivity at 6 dB</b>	± 12.5 kHz min	
<b>Squelch</b>	Independent of main receiver	

## TRANSMITTER

<b>Carrier output adjustable</b>	<b>AM</b>	500 mW to 10 W
	<b>FM</b>	500 mW to 15 W
<b>Modulation characteristics</b>	<b>AM - Modulation depth</b>	≥ 80 %
	<b>FM - Frequency deviation</b>	up to ± 20 kHz
<b>Wideband noise</b>	< - 150 dBc / Hz ± 10 MHz from carrier frequency	
<b>Self protection</b>	VSWR, temperature Power reduction (automatic)	

# THALES

THALES Communications

66, rue du Fossé Blanc - BP 156 - 92231 Gennevilliers Cedex - FRANCE

Phone: +33 (0)1 46 13 20 00 - Fax: +33 (0)1 46 13 21 63

www.thales-communications.com