



## TRA 6030

V/UHF ECCM AIRBORNE TRANSCEIVER SERIES

- > **SATURN**
- > **Proprietary ECCM**
- > **Have Quick II**
- > **100 - 400 MHz**
- > **15 W AM - 20 W FM**
- > **External or embedded COMSEC**
- > **Voice and data**
- > **8.33 and 25 kHz channel spacing**
- > **MIL-STD 1553B / ARINC 429**
- > **Remote control panel**

# TRA 6030

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

- > TRA 6031:
  - Fixed Frequency, Have Quick, SATURN, etc.
- > TRA 6035:
  - Fixed Frequency, Have Quick, Proprietary ECCM, etc.
- > System integration components:
  - ECCM management system
  - IDM/EDM compatibility
- > Improved cosite operation
- > Full range of ancillaries:
  - Remote Control Unit
  - Agile filters
  - Multicouplers
  - External booster
  - Antennas

## GENERAL CHARACTERISTICS

<b>Frequency range</b>	<b>VHF</b>	108 to 173.975 MHz
	<b>UHF</b>	225 to 399.975 MHz
<b>Channel spacing</b>		25 kHz, 8.33 kHz
<b>Frequency accuracy</b>		± 0.5 ppm, - 40° C to + 70° C
<b>Modulation type</b>		AM, FM, MSK, FSK
<b>Functions</b>	<b>Fixed frequency</b>	Voice: clear / secure Data: L11 (L22)
	<b>ECCM</b>	Voice: clear / secure Data: point-to-point, option (TDMA, L22)
<b>ECCM</b>		Have Quick I and II (Stanag 4246) * SATURN (Stanag 4372) * Fast Frequency Hopping (FFH)
<b>COMSEC</b>		External KY 58 - KY 100 Proprietary embedded COMSEC
<b>Control</b>		MIL-STD 1553, ARINC 429, RS 422
<b>Built-in-test</b>		Yes
<b>Power supply</b>		+ 28 VDC, EN 2282
<b>Power consumption</b>		
	<b>Operating receive</b>	45 W
	<b>Operating transmit</b>	250 W
<b>MTBF</b>		1.000 hrs

## PHYSICAL

<b>Dimensions</b>	<b>(W x H x D)</b>	3.56 x 7.64 x 12.61 inches 90.4 x 194 x 320.5 mm
<b>Weight</b>		15.4 lbs (7 kg)

\* NATO Clearance required for Non-NATO customer

## ENVIRONMENT

<b>Class</b>	MIL-STD-810 D
<b>Operating temperature range</b>	- 40° C to + 71° C
<b>Storage temperature range</b>	- 55° C to + 85° C
<b>Altitude</b>	70,000 ft
<b>Shock/Vibration</b>	MIL-STD 810 D
<b>EMC</b>	MIL-STD 461 C

## MAIN RECEIVER

<b>Sensitivity</b>	<b>AM</b>	- 101 dBm, 30 % modulation
	<b>FM</b>	- 107 dBm, ± 2.4 kHz deviation
	<b>SATURN</b>	- 101 dBm, 0.1 % BER
	<b>FFH</b>	- 101 dBm, 0.1 % BER
<b>Selectivity at 6 dB</b>	<b>NB 1</b>	± 3.5 kHz min (voice 8.33)
	<b>NB 2</b>	± 11 kHz min (clear voice / NB secure voice, HQ)
	<b>WB 1</b>	± 20 kHz min (SATURN)
	<b>WB 2</b>	± 25 kHz min (WB secure voice, link 11)
	<b>WB 3</b>	± 30 kHz min (FFH)
	<b>Squelch</b>	<b>Adjustment range</b>

## GUARD RECEIVER

<b>Input</b>		Common to main receiver
<b>Channel frequency</b>	<b>VHF</b>	121.500 MHz 156.8 MHz (FM) 156.525 MHz (GMDSS)
	<b>UHF</b>	243.000 MHz
<b>Sensitivity</b>		- 100 dBm, 30 % modulation
<b>Selectivity at 6 dB</b>		± 25 kHz min
<b>Squelch</b>		Independent of main receiver

## TRANSMITTER

<b>Carrier output</b>	<b>AM</b>	15 W
	<b>FM</b>	20 W
	<b>Reduced power</b>	5 W
	<b>LPI power</b>	20 mW
<b>Modulation characteristics</b>		
<b>AM - Modulation depth</b>		> 80 %
<b>AM Tone</b>		up to 90 %
<b>FM - Frequency deviation</b>		up to ± 20 kHz
<b>Distortion</b>		5 %
<b>Wideband noise</b>		< - 160 dBc / Hz ± 10 MHz from carrier frequency
<b>Self protection</b>		VSWR, temperature Power reduction (automatic)

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