

Remote Control Head Dimensions:

Length	..	26mm
Width	..	159mm
Height	..	51mm
Weight (radio & control head)	..	1.2kg

1.2.3 Receiver Performance

Type:

All Except T2000-200	..	triple conversion superheterodyne
T2000-200	..	dual conversion superheterodyne

Sensitivity:

12dB Sinad	..	better than -117dBm
20dB Sinad (psophometric)	..	better than -113dBm
20dB Quieting	..	better than -113dBm

IF Amplifiers:

Frequencies:

T2000-200	..	10.7MHz and 455kHz
T2000-100, -300, -400	..	27.7MHz, 10.7MHz and 455kHz
T2000-500, -600, -700, -900, -000	..	49.1MHz, 10.7MHz and 455kHz
T2000-800	..	61.9MHz, 10.7MHz and 455kHz

First Local Oscillator Injection (with respect to signal):

T2000-200, -300	..	high side
T2000-100, -400, -500, -600, -700, -800, -900, -000	..	low side

Second Local Oscillator Injection (with respect to signal):

T2000-100, -300, -400	..	high side
T2000-200, -500, -600, -700, -800, -900, -000	..	low side

Third Local Oscillator Injection (with respect to signal):

T2000-100, -300, -400	..	low side
T2000-500, -600, -700 -800, -900, -000	..	low side

Bandwidth:

Narrow Band	..	7.5kHz
Medium Band	..	12kHz
Wide Band	..	15kHz

Signal-to-Noise Ratio (with respect to 100% deviation, at RF level of -47dBm):

Narrow Band	..	45dB
Medium Band	..	48dB
Wide Band		
All Except T2000-800	..	50dB
T2000-800	..	45dB

Audio:

Minimum Load Impedance	.. 2Ω
Rated Power (into 4Ω)	.. 4W (at 1kHz)
Distortion:	
@ Rated Power (1kHz)	.. <5%
@ 0.5W (0.3 to 3.0kHz)	.. <3% (narrow band) <2.5% (medium band) <2% (wide band)
Response	.. within +1, -3dB of 6dB/octave de-emphasis
Bandwidth	.. 300Hz to 3kHz
Selectivity	.. better than 70dB
Spurious Response Attenuation	
All Except T2000-000, -800	.. 75dB (80dB EIA)
T2000-000	.. 60dB
T2000-800	.. 70dB (70dB EIA)
Intermodulation Response Attenuation	.. 66dB (75dB EIA)
Spurious Emissions (conducted & radiated to 1GHz)	.. better than -57dBm
Spurious Emissions (conducted & radiated 1 to 4GHz)	.. better than -47dBm
Blocking	.. better than -23dBm
Co-channel Rejection:	
Narrow Band	.. better than 9dB
Medium Band	.. better than 7dB
Wide Band	.. better than 6dB
Group Delay	.. $\pm 50\mu\text{s}$ (300Hz to 3kHz)
Squelch:	
Preset Level	.. 11dB sinad
Ratio	.. >70dB
Voting Levels	.. >20dB sinad (applies to T2020 only)

1.2.4 Transmitter Performance

Power Output:	
Maximum:	
All Except T2000-800	.. 30W
T2000-8000	.. 25W
High (high setting):	
All Except T2000-800	.. 25W
T2000-8000	.. 15W
Low (low setting):	
T2000-200, -300, -400	.. 1 to 25W
T2000-100, -500, -600, -700, -900	.. 5 to 25W
T2000-800	.. 5 to 15W
Low Power Version	.. 1 to 7W (T2000-500, -600)
Duty Cycle (33%)	.. 2 minutes Tx, 4 minutes Rx
Lock Up Time (synthesiser)	.. 25ms (from PTT to 90% output power within 2kHz, not including micro. delay)
Spurious Emissions (conducted & radiated to 1GHz)	.. better than -36dBm
Spurious Emissions (conducted & radiated to 1 to 4GHz)	.. better than -30dBm
Adjacent Channel Power:	
Narrow Band	.. better than -65dBc
Medium Band	.. -70dBc
Wide Band	.. -80dBc
Group Delay	.. +200/-50µs (300Hz to 3kHz)
Modulation System:	
Type	.. direct FM
Deviation Limiting:	
Narrow Band	.. ±2.5kHz (peak) max.
Medium Band	.. ±4kHz (peak) max.
Wide Band	.. ±5kHz (peak) max.
Bandwidth:	
Narrow Band	.. 300Hz to 2.55kHz below limiting or 450Hz to 2.55kHz in limiting
Medium & Wide Band	.. 300Hz to 3kHz below limiting or 450Hz to 3kHz in limiting
Responses:	
In Limiting	.. within +0dB, -4dB of maximum system deviation
Below Limiting	.. within +1, -3dB of 6dB/octave pre-emphasis
Above 3kHz	.. greater than 25dB/octave roll-off

Audio:

Microphone Type .. dynamic or electret
 Input For 60% Deviation .. 1.5mVrms maximum (at 1kHz)

Distortion .. 5%

Hum & Noise:

All Except T2000-800:
 Narrow Band .. 39dB
 Medium Band .. 43dB
 Wide Band .. 45dB
 T2000-800:
 Wide Band .. 40dB

Mismatch Capability:

Ruggedness .. 2 minutes transmission into infinite VSWR
 Stability .. VSWR 5:1 (all phase angles)

Transmit Timer (non-trunking models) .. programmable up to 4 minutes, or continuous.

1.2.5 Frequency Reference

Oscillator Frequency .. 12.8MHz

Crystal Stability And Source Details .. see table below:

Product Code	Frequency Tolerance (ppm)	Temperature Range (°C)	Frequency Source
T2XX-XX1	±5	-10 to +60	TE/45 xtal
T2XX-XX3*	±3	-30 to +60	VXO-2605A Module
T2XX-XX5	±2.5	-30 to +60	VXO-2605A-1 Module [†]
T2XX-XX6	±2.0	-30 to +60	TDC 60281 Module [†]

*. Not fitted to T2000-200 due to low modulatibility.

†. Fitted only to 400MHz versions and above, due to low modulatibility.

1.2.6 Trunking

1.2.6.1 T2030, T2035, T2040 & T2050 Models

Data Modulation .. as per MPT1317

Data Deviation (Tx: 60% full system deviation):

Narrow Band	.. 1.5kHz
Medium Band	.. 2.4kHz
Wide Band	.. 3kHz

1.2.6.2 T2060 Model

System .. LTR[®] trunked¹, systems x groups = 24

Data Deviation (Tx) .. 1kHz

1.3 Operating Instructions

Refer to the User's Guide supplied with the radio. These are also available separately under the following IPNs:

T2010/T2015	459-20100-0X
T2020	459-20200-0X
T2030/T2035	459-20300-0X
T2040	459-20400-0X
T2060	459-20600-0X

Comprehensive Operator's Manuals are also available for T2020 and T2040 radios. These Manuals cover such topics as advanced user operations and the use of trunked radios for data applications. These are available under the following IPNs:

T2020	409-20200-0X
T2040	409-20400-0X

1. LTR[®] is a trademark of E F Johnson & Co.

1.4 Product Codes

The 3 groups of digits in a T2000 product code provide information about the radio's model, RF type and options fitted, according to the conventions described below.

The following explanation of the T2000 product codes is not intended to suggest that any combination of features is necessarily available in any one radio. For details regarding availability of specific T2000 radios, consult your nearest Tait dealer or subsidiary.

Model

The Model group indicates the basic features of the radio, as follows:

T20XX -XXX-XXX	T2010	4 channels	
	T2015	24 channels	
	T2020	100 channels	
	T2030	4 calls, all preset	trunked
	T2035	1000 calls, including 20 preset	trunked
	T2040	dialled calls	trunked
	T2050	dual mode T2040 or T2020 operation	trunked, non-trunked
	T2060	LTR [®] , systems x groups = 24	trunked

RF Type

RF Type group uses 3 digits to indicate the basic RF configuration of the radio.

The first digit in the RF Type group designates frequency band.

T20XX- <u>X</u> XX-XXX	'1' for 220 to 270MHz
	'2' for 66 to 88MHz
	'3' for 136 to 174MHz
	'4' for 175 to 225MHz
	'5' for 400 to 470MHz
	'6' for 450 to 520MHz
	'7' for 330 to 360MHz
	'8' for 800 to 870MHz transmit 851 to 870MHz receive
	'9' for 360 to 400MHz
	'0' for 500 to 530MHz

The second digit in the RF Type group designates radio IF bandwidth.

T20XX-X <u>X</u> X-XXX	'1' for wide band (15kHz)
	'2' for narrow band (7.5kHz)
	'3' for medium band (12.5kHz)

The third digit in the RF Type group designates frequency stability.

T20XX-XX <u>X</u> -XXX	refer to "Frequency Reference" on page 1.8.
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Options

T20XX-XXX-XXX The third group of digits covers a wide range of software and market specific options. The large number of options and their frequent changes preclude listing them here.