1.3 Specifications

1.3.1 Introduction

The performance figures given are minimum figures, unless otherwise indicated, for equipment operating at standard room temperature (+22°C to +28°C) and standard test voltage (13.8V DC).

Ambient temperature is defined as the temperature of the air at the input to the cooling fan mounted on the heatsink, or immediately surrounding the heatsink if a fan is not fitted.

Where applicable, the test methods used to obtain the following performance figures are those described in the ETS specification. Refer to Section 1.3.3 for details of test standards.

Details of test methods and the conditions which apply for Type Approval testing in all countries can be obtained from Tait Electronics Ltd.

1.3.2 General

Power Output:

T858	- Rated Power	.. 50W
	- Range Of Adjustment	.. 10 to 60W (typical)
T859	- Rated Power	.. 100W
	- Range Of Adjustment	.. 20 to 110W (typical)

Input Power .. 700 to 1300mW

Duty Cycle Rating:

T858	.. 50W continuous to +60°C ambient temperature
	.. 60W continuous to +40°C ambient temperature
T859	.. 100W continuous to +60°C ambient temperature

Intermodulation (PA with output isolator) .. -70dBc or -40dBi[1] with 25dB isolation & interfering signal of -30dBc

Mismatch Capability:

Ruggedness	.. refer to your nearest Tait Dealer or Customer Service Organisation
Stability	.. 5:1 VSWR (all phase angles)

1. dBi denotes the level of intermodulation product relative to the interfering signal.

Supply Voltage:

Operating Voltage	..	10.8 to 16V DC
Standard Test Voltage	..	13.8V DC
Polarity	..	negative earth only
Polarity Protection	..	crowbar diode

Maximum Supply Current (T858 @ 50W, T859 @ 100W):

Standby		..	50mA
Transmit	- T858 without power module	..	11A
	- T858 with power module	..	12A (11A typical)
	- T859 without power module	..	22A
	- T859 with power module	..	23A (21A typical)

Spurious Emissions:

Conducted	- Transmit	..	-36dBm to 1GHz -30dBm 1GHz to 4GHz
	- Standby	..	-57dBm to 1GHz -47dBm 1GHz to 4GHz
Radiated	- Transmit	..	-36dBm to 1GHz -30dBm 1GHz to 4GHz
	- Standby	..	-57dBm to 1GHz -47dBm 1GHz to 4GHz

Operating Temperature Range .. -30°C to +60°C ambient temperature

Dimensions:

Height		..	183mm
Width	- T858	..	60mm
	- T859	..	120mm
Length		..	340mm

Weight:

T858	..	3.1kg
T859	..	3.5kg

1.3.3 Test Standards

Where applicable, this equipment is tested in accordance with the following standards.

1.3.3.1 European Telecommunication Standard

ETS 300 086 January 1991

Radio equipment and systems; land mobile service; technical characteristics and test conditions for radio equipment with an internal or external RF connector intended primarily for analogue speech.

ETS 300 113 March 1996

Radio equipment and systems; land mobile service; technical characteristics and test conditions for radio equipment intended for the transmission of data (and speech) and having an antenna connector.

ETS 300 219 October 1993

Radio equipment and systems; land mobile service; technical characteristics and test conditions for radio equipment transmitting signals to initiate a specific response in the receiver.

ETS 300 279 February 1996

Radio equipment and systems; electromagnetic compatibility (EMC) standard for private land mobile radio (PMR) and ancillary equipment (speech and/or non-speech).

1.3.3.2 DTI CEPT Recommendation T/R-24-01

Annex I: 1988

Technical characteristics and test conditions for radio equipment in the land mobile service intended primarily for analogue speech.

Annex II: 1988

Technical characteristics of radio equipment in the land mobile service with regard to quality and stability of transmission.

1.3.3.3 Telecommunications Industry Association

ANSI/TIA/EIA-603-1992

Land mobile FM or PM communications equipment measurement and performance standards.

