

12 July 2006

Donald K Willis

Manager Spectrum Planning and International Office  
FAA Spectrum Engineering Division  
800 Independence Avenue SW  
Washington,  
DC 20591

Dear Sir,

Please be advised that we are about to undertake a FCC certification through our local test facility, RFI Global Services Limited. The equipment involved is a high power transmitter for ground to air communication in the 118-136.975 MHz band.

The product is designed for extended coverage applications and produces either 200W or 300W dependant on model.

The transmitters comprise a drive unit, a combiner and either 2 or 3 100W amplifier assemblies.

We currently, only have a Canadian requirement for this equipment but would also like to make it available in America so the testing will cover both countries.

I understand that there is a maximum power output of 200W normally applicable to this band, and both products can be set from below 50W to full power.

All performance parameters are the same as the 100W transmitter C8LB63100HS.

If you could address any concerns or objections to myself or RFI Global Services I would be grateful.

Yours faithfully,



Allan Horsfield  
Consultant Engineer  
EMC and Approvals  
Email: a.horsfield@uk.parkairsystems.com

CAB:

RFI Global Services Limited, Ewhurst Park, Ramsdell, Basingstoke Hampshire,  
England RG26 5RQ (email: peter.roberts@rfi-global.com)

**FAA Notification of FCC Type Acceptance Application for T6 Series  
200W/300W Ground to Air Transmitters.**

General

FCC Number (proposed)

T6T HS 200	A 200W transmitter	C8LB63200HS
T6T HS 300	A 300W transmitter	C8LB63300HS

Manufacturer	Park Air Systems Ltd. England.
RF Output Power	200/300Watts
Antenna port	50R N-type connector
Frequency range	118 MHz to 136.975 MHz.
Method of tuning	Frequency selected by front panel control and LCD display.
Channelling capability	25 kHz (8.33kHz capable).
Emission bandwidth	Within FCC limits see attached report summary
Emission type	6K00A3E
Emission/harmonics	
EMC	All products are Type examined under the EMC Directive to comply with emission and immunity requirements to Class B. Certificates attached.
Safety	All equipment is designed to comply with EN60950. This equipment will also be certified to UL 60950 and CSA 22.2 No. 60950.

Description

Park Air Systems T6 series are VHF multi-mode air-traffic control radios compatible with analogue (AM) and digital (D8PSK) modulation modes. Current models are supplied programmed for AM voice operation in the frequency range 118 to 136.975 MHz using 25 kHz or 8.33 kHz channel spacing. The latter is disabled through front panel settings for the American market.

This transmitter produces a 200W/300W carrier output that can be reduced, in steps, to 20/30W. The output power, and the majority of operational settings, can be selected at the front panel, using the virtual front panel (VFP) on a pc, or through a compatible control and data system such as the PAE multi-access remote control (MARC) system. A multi-channel feature allows up to 100 frequency channels to be stored and recalled by channel number.

The equipment is designed to be fitted in an industrial 19 inch (483 mm) equipment rack. Operation is from either a standard ac mains supply, or from a low voltage dc supply. When both input supplies are connected, the dc supply acts as a back-up if the mains supply fails.

Comprehensive continuous and interruptive Built-In Tests (BIT) provide confidence of the radios serviceability.

The transmitters are based on current 50W and 100W approved models:

T6T 50W VHF AM transmitter under filing C8LB6350-S2

T6T HS 100 VHF 100W AM transmitter under filing C8LB63100HS

The driver comprises a T6T 50W transmitter with the power amplifier replaced by a drive module.

The amplifier consists of a T6T HS 100 with the processor and power amplifier control modules replaced by a simple interface.

Outputs from the amplifiers are then combined in an external combiner module. This unit uses DC sensing to determine whether the equipment is 200W or 300W and also to confirm cables are correctly configured.

All transmitters employ the same processor control module, power amplifiers and power supplies that were employed in the previously approved 100W transmitter.

T6T HS 300

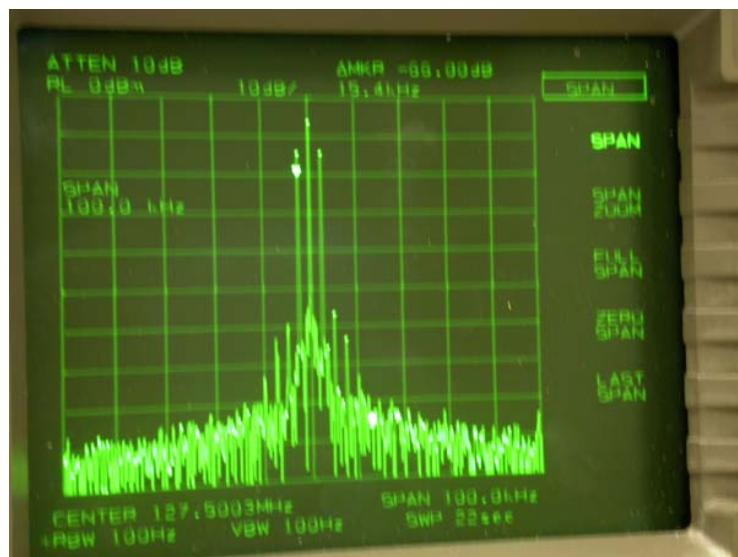
Occupied Bandwidth - 47 CFR 2.1049 (1)

Measured at 127.5 MHZ

Power output: 300W

Result : 5.15kHz

Authorized bandwidth: 25 kHz



Same results also measured at 118 and 136.975 MHz

Harmonic Output Specification:

Measured at 127.5MHz, 300W carrier; the typical harmonic output was measured at

2Fc -36dBm

3Fc -36.3dBm

All higher harmonics < -40dBm

Non harmonic spurious output specification: -46 dBm.

## UK EMC Type Certification

Safety Regulation Group  
Air Traffic Services Standards Department



*Notified Body No 0190 under  
the UK EMC Regulations*

### EC Type Examination Certificate

Certificate No	:	04/21
Issue No	:	1
Manufacturer	:	Park Air Systems Ltd
Address	:	Northfields, Market Deeping, Nr. Peterborough *
European Agent	:	N/A
Address	:	N/A
Equipment	:	T6T HS 300 VHF 300W Ground Station Transmitter
Type tested	:	B63300HS
Type(s) covered	:	T6T HS 200 Model B63200HS
Option(s) covered:	:	None
Modifications	:	5 Drivers and Amplifiers; 0 Combiner Unit
Software Issue	:	65-00000465v8 AM Voice
Firmware Issue	:	Boot Code 65-00000434v2 Base Code 65-00000435v3
EMC Standards	:	EN 61000-4-2 L2&3,B EN 61000-3-2,A EN 61000-3-3 EN 61000-4-4 L2&3,B EN 61000-4-3,L3,A EN 55022 B EN 61000-4-6,L3,A EN 61000-4-5,L3,B EN 61000-4-11,B/C

\*Certificate address

The UK Civil Aviation Authority in exercise of its powers under regulation 64 of the Electromagnetic Compatibility Regulations 1992 hereby certifies that the apparatus described above conforms with the protection requirements referred to in the regulations.

This certificate does not confer CAA type or installation approval under the Air Navigation Order

*Signed on behalf of the CAA Notified Body by* A handwritten signature in blue ink, appearing to read 'T K Dunford'.

T K Dunford

Date 19 September 2005

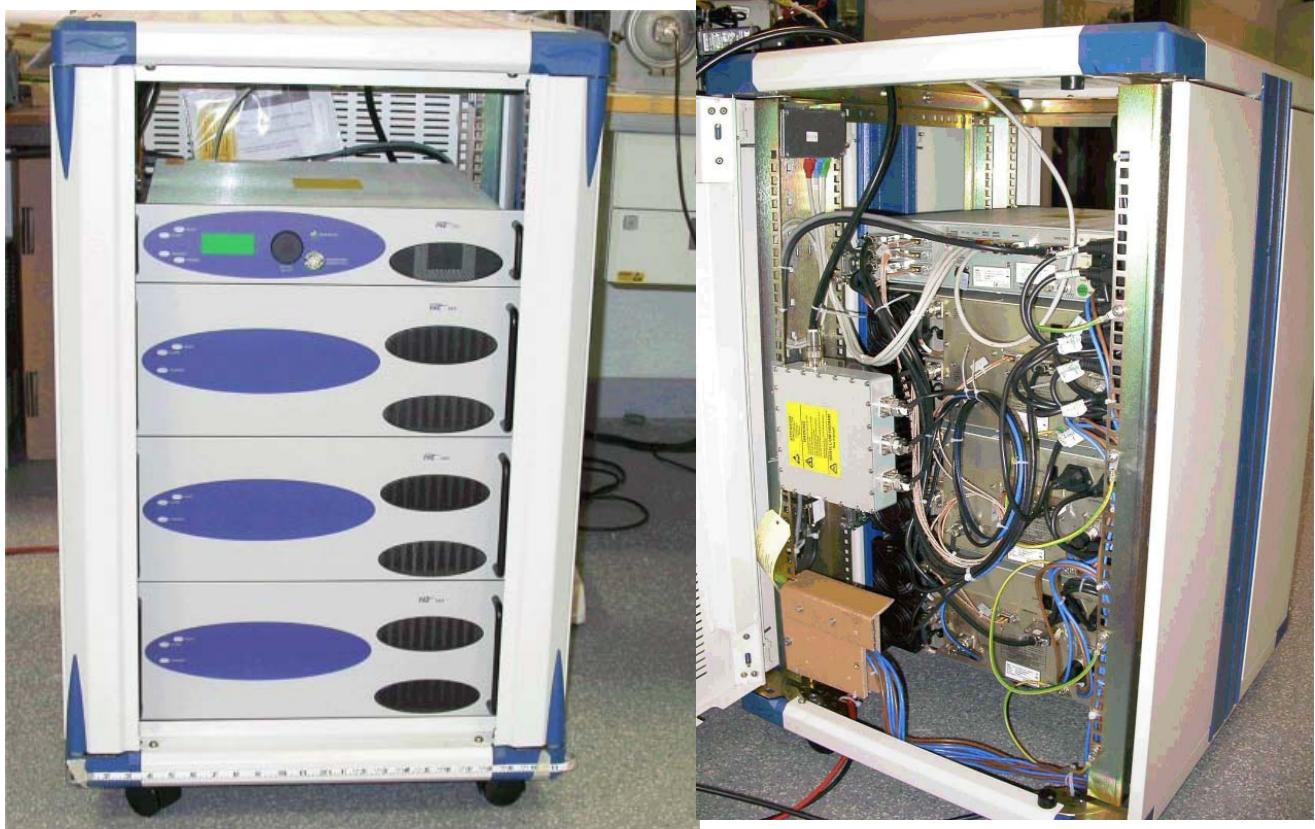


For the Civil Aviation Authority

Issued by the Safety Regulation Group, Aviation House, Gatwick Airport South, West Sussex RH6 0YR  
C/NB/7 Issue 5 Sept 2001

## Equipment Photos

Example 300W configuration in mini rack:



The 200W version has two amplifiers rather than the three shown above

100W Amplifier front view



100W Amplifier rear view



200W transmitter comprises 2 amplifiers , a drive unit and a combiner module  
300W transmitter comprises 3 amplifiers , a drive unit and a combiner module

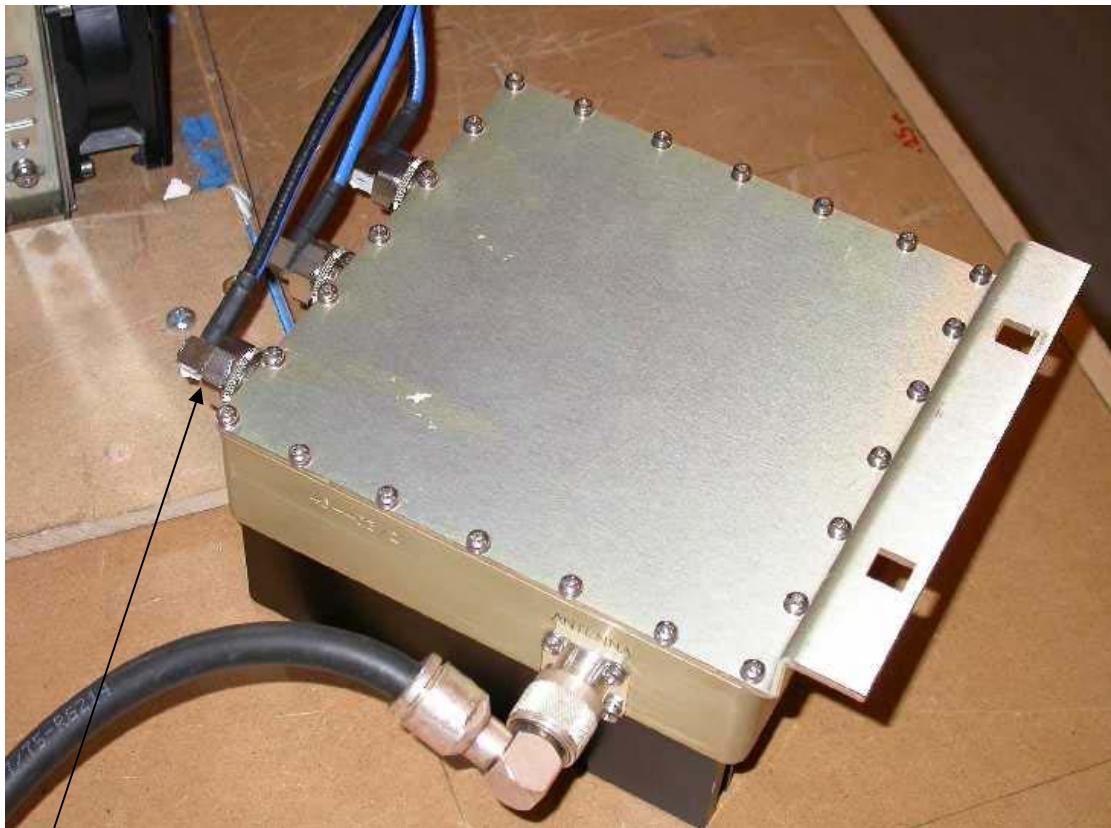
Drive unit front view



Drive unit rear view



Combiner module for 200 or 300 Watt:



For 200W transmitter one port is left open