

9 October, 2000

FAA Spectrum Engineering Division
800 Independence Avenue SW
Washington,
DC 20591

FCC ID C8LBT6MBS FCC Application EA98998

Dear Sirs,

Please be advised that we are making an application to the Federal Communications Commission to obtain an Equipment Authorisation Grant for Park Air Electronics VHF ground station transceiver model number BT6MBS.

The equipment provides 8W RF output power in the 118 – 136.975 MHz band employing A3E (AM) modulation.

The radio incorporates the PAE mobile radio BT6M (FCC ID C8LBT6M) together with an interface and AC power supply in a moulded cabinet to form a low power transceiver.

A summary of the equipment's performance is attached which is taken from the mobile radio test data.

Yours faithfully,



Allan Horsfield
Principal Engineer
EMC and Approvals

FAA Notification of FCC Type Acceptance Application for PAE BT6MBS.

General

FCC Number	C8LBT6MBS
Manufacturer	Park Air Electronics Ltd. England.
Type	T6MBS VHF transceiver
Model Number	BT6MBS
RF Output Power	8 Watts
Antenna port	50R N-type connector
Frequency range	118 MHz to 136.975 MHz.
Method of tuning	Pre programmed frequencies selected by front panel controls.
Channelling capability	25 kHz and 8.33kHz.
Emission bandwidth	Within FCC limits see attached report summary
Emission type	6K0A3EJN
Emission/harmonics	See attached report summary

Description

The Park Air Electronics (PAE) transceiver Type T6MBS is a multi-channel VHF AM equipment operating in the frequency range 118 to 137 MHz with a bandwidth of 8.33 or 25 kHz. The transceiver is designed for desktop mounting, but a rack version is also applicable. The equipment, which operates from a mains or DC supply incorporates automatic change-over in the event of mains failure

The transceiver provides a nominal 8 watt output.

This transceiver utilises a mobile radio model no. BT6M (C8LBT6M) as the basic RF source. An interface allows basic remote control (keying and audio) of the radio via 4 analogue ports.

The required frequencies, priority frequencies and scan facilities are normally programmed, to the user's requirements, during manufacture or by the equipment supplier. If a user wishes to programme the equipment, then disk based programming software and a programming lead can be supplied by PAE.

The FCC application only covers operation on 25kHz channel spacing.

PAE BT6MBS VHF transmitter emission performance summary:

All results taken from report number CTMS 2000/1301a produced by Cambridge Test and Measurement Services and submitted to the FCC supporting an original application for Grant of Equipment Authorisation for C8LBT6M mobile radio.

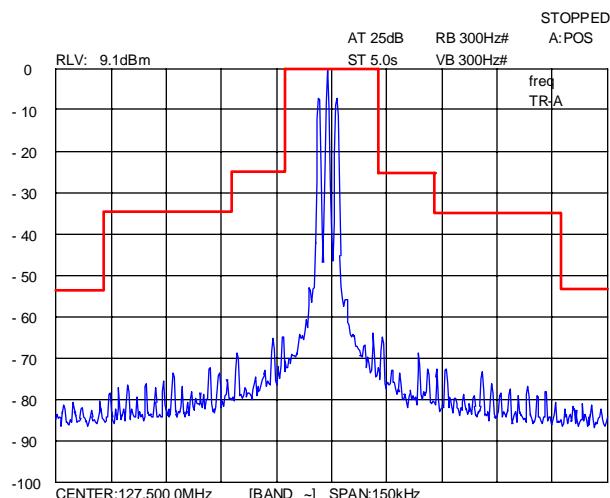
This equipment incorporates the above mobile radio. No electrical or software changes are made to the radio.

Occupied Bandwidth - 47 CFR 2.1049 (1)

Occupied Bandwidth

Rules Parts 2.1049 and 87.139

Mask showing compliance with 25 kHz channel spacing



Results from mobile radio test report.

Further tests to EN55022 Class B were performed on the base station model and showed compliance with the standard. A Type Examination Certificate No. 04/13 was granted by the UK Civil Aviation Authority in respect of EMC testing on the BT6MBS.

Results in accordance with Part 2.1051 and 87.139 Emission Limits

Note: Emissions 20dB below limit are not required to be listed

Carrier Frequency (Fc) : 127.5 MHz

Frequency (MHz)	Identity	Absolute Level	Level (relative to RF Power 8W) dB w.r.t limit of 43+10 log power	
		dBm limit - 13	dBc limit - 52	Remarks
127.398	Spurious	- 35.7	- 74.7	All others >
127.603	Spurious	- 39.2	- 78.2	20 dB within
255.000	2fc	- 47.5	- 86.5	Specification
382.500	3fc	- 53.7	- 92.7	Limit.

* FCC Registration Number 93395

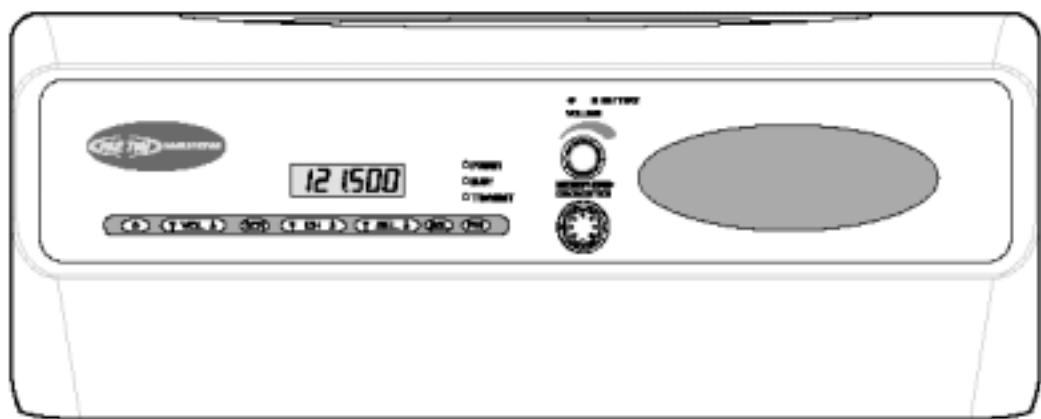
Results in accordance with Part 2.1053 and 87.139 Emission Limits

Notes: 1 Emissions 20dB below limit are not required to be listed
2 Following a pre-scan below 30MHz, no emissions detected greater than 20dB above specification limits

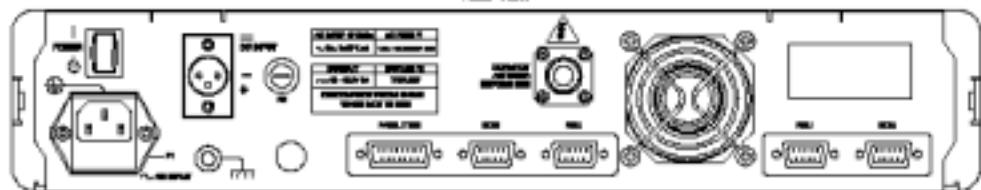
Carrier Frequency (Fc) : 127.5 MHz

Frequency (MHz)	Identity	Absolute Level dBm	Level (relative to RF Power 8W) dB w.r.t limit of 43+10 log power	
		limit - 13	limit -52 dBc	Remarks
176.94	Spurious	- 63.2	- 102.2	All greater than 20dB
255.60	Spurious	- 65.0	- 104.0	within Specification Limit.

Front View



Back View



Internal view showing mobile radio

