

Federal Aviation Administration
 Aircraft Certification Office
 AEU-100
 Attn. Mr John R. Colomy
 27, Boulevard du Regent
 B-1000 Brussels
 Belgium

January 12, 2000 / M.

**Application for TSO-Authorisation for the VHF/AM Transceiver Families FSG 90(X),
 FSG 90(X)-H1, FSG 200(X) and FSG 200(X)-H1 under the TSO-C37e and TSO-C38e**

Dear Mr. Colomy,

Walter Dittel GmbH Luftfahrtgerätebau has developed a VHF/AM 25 kHz and 8.33 kHz Dual Channel Spacing Transceiver Family consisting of 48 models in four groups.

FSG 90(X), FSG 90(X)-H1, FSG 200(X), FSG 200(X)-H1. Identification details are listed below.

Front	Freq. Range	CH Space	CH	Group 1 6 Watt (Dittel)	Group 2 10 W (Dittel)	Group 3 6 W (OEM)	Group 4 10 W (OEM)
Round 2 1/4" Ø	118.000-136.975	8.33 kHz 25 kHz	2,278 760	FSG 90 F10185	FSG 90-H1 F10302	FSG 200 F10321	FSG 200-H1 F10333
Round 2 1/4" Ø	118.000-136.975	25 kHz	760	FSG 90 F10191	FSG 90-H1 F10303	FSG 200 F10322	FSG 200-H1 F10334
Round 2 1/4" Ø	118.000-149.975	8.33 kHz 25 kHz	3,838 1,280	FSG 90E F10192	FSG 90E-H1 F10304	FSG 200E F10323	FSG 200E-H1 F10335
Round 2 1/4" Ø	118.000-149.975	25 kHz	1,280	FSG 90E F10193	FSG 90E-H1 F10305	FSG 200E F10324	FSG 200E-H1 F10336
Rectangular	118.000-136.975	8.33 kHz 25 kHz	2,278 760	FSG 90F F10194	FSG 90F-H1 F10306	FSG 200F F10325	FSG 200F-H1 F10337
Rectangular	118.000-136.975	25 kHz	760	FSG 90F F10195	FSG 90F-H1 F10307	FSG 200F F10326	FSG 200F-H1 F10338
Rectangular	118.000-149.975	8.33 kHz 25 kHz	3,838 1,280	FSG 90FE F10196	FSG 90FE-H1 F10308	FSG 200FE F10327	FSG 200FE-H1 F10339
Rectangular	118.000-149.975	25 kHz	1,280	FSG 90FE F10197	FSG 90FE-H1 F10309	FSG 200FE F10328	FSG 200FE-H1 F10340
Round 2 1/4" Ø	118.000-136.975	25 kHz only	760	FSG 90L F10208	FSG 90L-H1 F10310	FSG 200L F10329	FSG 200L-H1 F10341
Round 2 1/4" Ø	118.000-149.975	25 kHz only	1,280	FSG 90EL F10209	FSG 90EL-H1 F10311	FSG 200EL F10330	FSG 200EL-H1 F10342
Rectangular	118.000-136.975	25 kHz only	760	FSG 90FL F10210	FSG 90FL-H1 F10312	FSG 200FL F10331	FSG 200FL-H1 F10343
Rectangular	118.000-149.975	25 kHz only	1,280	FSG 90FEL F10211	FSG 90FEL-H1 F10313	FSG 200FEL F10332	FSG 200FEL-H1 F10344

The FSG 90(X) is the basic Transceiver Line produced and marketed by WALTER DITTEL GmbH.

For OEM marketing reasons, a fully identical family named FSG 200(X) series is the OEM variant of the FSG 90(X). The FSG 200(X) is besides different nomenclature technically fully identical with the FSG 90(X) series. The index (X) indicates the family structure.

Presently, not all of the 24 models FSG 90(X) are in production. Therefore, depending on orders, the necessary documentation of those models which are presently not produced will be completed ahead in time. The LBA Luftfahrtbundesamt agrees with this policy.

The FSG 200(X) models are also not yet in production.

Equipment differences are in:

- a) Chassis style / dimensions and panel mounting method:
Round instrument 57 mm Ø diameter front, and rectangular front panel with DZUS fastener.
- b) 6 Watt RF output power: FSG 90(X), FSG 90E(X), FSG 200(X) and FSG 200E(X)
- c) 10 W RF output power: FSG 90(X)-H1, FSG 90E(X)-H1, FSG 200(X)-H1 and FSG 200E(X)-H1
- d) Frequency Range:
Series FSG 90(X), FSG 90(X)-H1, FSG 200(X), FSG 200(X)-H1: 118.000 to 136.975 MHz
Series FSG 90E(X), FSG 90E(X)-H1, FSG 200E(X), FSG 200E(X)-H1: 118.000 to 149.975 MHz
- e) 8.33 kHz CH spacing built-in but can be disabled by integral jumper: All models
- f) 8.33 kHz CH spacing not built-in, but can later be upgraded by the manufacturer, or by an authorized facility to add 8.33 kHz CH spacing: L models

Qualification Tests were completed and JTSC Authorization was granted by the German Luftfahrt-Bundesamt (LBA) on October 27, 1999:

LBA.O.10.911/98 JTSC for the 24 models of FSG 90(X) and FSG 90(X)-H1 families.

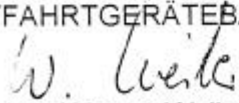
LBA.O.10.911/102 JTSC for the 24 models of FSG 200(X) and FSG 200(X)-H1 families.

Thus, application is hereby made to manufacture the Airband Transceivers listed above under the System TSO-C37e and TSO-C38e.

The attached List of Documentation for series FSG 90(X) and FSG 90(X)-H1 supports and identifies the articles under this TSO application which are currently in production.

Sincerely yours

WALTER DITTEL GMBH
LUFTFAHRTGERÄTEBAU


i.A. Ing. Werner Weiler
Chief, Radio Development


i.A. Peter Blusch
Chief, Quality Control

Enclosure