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Title: Comments, Notes, and Conditions Listed on OET Equipment Authorization Certification Grants

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Keyword/Subject: Grant Comments, Grant Remarks, Grant Conditions, and/or Grant Notes

First Category: Administrative Requirements

Second Category: Certification

Third Category:

Question:

What are the guidelines for Telecommunication Certification Bodies (TCBs) for listings comments, remarks, grant conditions, and/or grant notes on a grant of equipment authorization?

Answer:

This attached document below - 821551 D01 Comments Notes on Grants v01- provides guidance for Telecommunication Certification Bodies (TCBs) for uniform listings of conditions and notes on grants of equipment authorization.

Note:

1. For guidance on Specific Absorption Rate (SAR) listings on Equipment Authorization Grants see Knowledge Data Base (KDB) Publication 690783*

Attachment List:

[821551 D01 Comments Notes on Grants v01](#)

* 690783 is currently a published KDB.

Attachment 821551 D02 Comments Notes on Grants v01

Comments, Notes, and Conditions Listed on OET Equipment Authorization Certification Grants

I. General considerations

This document provides guidance for Telecommunication Certification Bodies (TCBs) for uniform listings of conditions and notes on grants of equipment authorization. Please contact FCC Laboratory about other guidance for any devices where listing variations might apply.

In addition to certain device descriptions and device technical parameters, each FCC Form 731A *Grant of Equipment Authorization*¹ may include grant remarks, grant conditions, and/or grant notes. Some grant remarks are basically informative only (e.g., how a device was tested), while some are restrictive, placing bounds on operations within the scope of the application (i.e., grant conditions).²

Grant comments should not be used to substitute for demonstrating compliance for intended and reasonably expected operating configurations for a device. For example, application filings for connectorized WLAN or WWAN modules intended and expected to be used in netbook and notebook computers should contain evaluations and supporting information for those operating conditions, so as to avoid collocation and mobile device grant restrictions. An equipment authorization certification is valid for the representations and test data shown in an application.

Grant comments are separate from and are not a substitute for TCB review and approval procedures and policies.

General and specific categories of technical and administrative items covered in grant comments include those listed in Clause II. Grant comments are typically applied in a “building block” approach, meaning administrative, EMC, RF exposure statements, etc., are combined as appropriate for device type and configurations evaluated. Sample grant comments are given in Clause III, which are meant as examples only, and TCBs must amend or reduce when using these as bases for each specific device and application filing. Concerning the two-character alphanumeric grant notes available in the electronic filing system, a list of codes and notes is given in Annex A for reference.

¹ FCC Form No. 731 is the *Application for Equipment Authorization*, while FCC Form 731A is the *Grant of Equipment Authorization Certification*.

² The term “grant comment” is used generally to refer to:

- 1) grant remark – generic term referring to the free-form input field Item 14 on the electronic FCC-TCB Form No. 731;
- 2) grant condition – usually means specific restrictions for device operation and/or marketing;
- 3) grant note – strictly speaking, refers to standardized grant comments listed as alphanumeric codes in the e-filing system.

II. General and specific categories of items covered by grant comments, and example building-block statements

- A) Output power: quantity type (e.g., radiated, conducted), nominal or maximum rated (see KDB pub. 291699; also July 2006 FCC-TCB conference-call notes).
 - 1) Output is ERP for Part 22 and EIRP for Part 24.
 - 2) Output is at the antenna terminal on the device.
 - 3) Listed output power is the composite levels measured at the antenna connector.
- B) Antenna installation and use requirements.
 - 1) Device may operate with multiple antennas; output is specified at each antenna terminal.
 - 2) Device must operate with the vehicle-mount antenna(s) specified in this filing to meet RF exposure requirements of § 2.1091.
 - 3) Device must operate with the antennas tested for this filing for satisfying RF exposure compliance.
 - 4) The antenna(s) used for this vehicular radar system (§15.253) must be installed to provide a separation distance of at least 20 cm from all persons during normal operation.
 - 5) The antenna(s) used for this field disturbance sensor system (§15.255) must be installed to provide a separation distance of at least 20 cm from all persons during normal operation.
 - 6) This device operates with a high-gain aperture antenna as an integral part of this transmitter, G(xx dBi).
 - 7) Antenna(s) used for this transmitter/device must be fixed-mounted on outdoor permanent structures to satisfy RF exposure requirements.
 - 8) Antenna(s) used for this transmitter/device must be fixed-mounted on towers, roof-tops or similar conditions to satisfy RF exposure compliance.
 - 9) Antenna(s) used for this transmitter are to be fixed-mounted on indoor permanent structures.
 - 10) Antenna(s) used for this transmitter must be installed to provide a minimum separation distance, as specified in this filing, from persons during normal operation, d(xx cm).
- C) Antenna operating requirements.
 - 1) An RF exposure label, as described in this filing, must be placed on the antenna of subscriber units; visible to all persons exposed in the vicinity of the antenna, for satisfying RF exposure requirements.
 - 2) The installation and operating configurations of this transmitter, including antenna gain and cable loss, as specified in this filing must be used for satisfying the RF exposure requirements of § 2.1091
 - 3) The device and its antenna(s) must operate with a minimum separation distance from all persons, as specified in this filing, d(xx cm)
 - 4) RF exposure compliance is addressed at the time of licensing, as required by the responsible FCC Bureau(s), including antenna co-location requirements of § 1.1307(b)(3)
 - 5) The antenna co-location requirements of § 1.1307(b)(3) must be addressed at the time of installation
 - 6) Installers and end-users must be provided with antenna installation instructions and transmitter operating conditions for satisfying RF exposure compliance
 - 7) End-users must be provided with the specific operating instructions for satisfying RF exposure compliance

- D) Device operating requirements.
 - 1) Device must satisfy the RF exposure requirements of § 2.1091 for mobile transmitting devices.
 - 2) Device is approved for hand-held and hand-operated configurations only for satisfying RF exposure requirements.
 - 3) Separate equipment approval is required for operations with respect to § 2.1093.
 - 4) This transmitter operates in a specific hand-held computer terminal and has been tested for SAR compliance for mobile and hand-held configurations.
 - 5) Device has been tested for SAR compliance in applicable operating configurations.
 - 6) End-users must be informed of the operating requirements for satisfying RF exposure compliance.
- E) Operating duty factor requirements.
 - 1) Device must operate with a maximum duty factor not exceeding 50 %.
 - 2) Device must operate with a maximum duty factor not exceeding that described in this filing, DF(xx %).
 - 3) The duty factor must be implemented in factory firmware.
- F) Body-worn accessory SAR compliance requirements.
 - 1) SAR compliance for body-worn operating configurations is limited to the specific body-worn accessories, such as belt-clips and holsters, tested for this filing.
 - 2) SAR compliance for body-worn operating configurations must be restricted to belt-clips and holsters that have no metallic component in the assembly.
 - 3) Device must operate with the minimum separation distance tested for SAR body-worn with accessories compliance, as described in this filing, d(xx cm)
 - 4) Device operates in push-to-talk configurations and has been tested for SAR compliance.
 - 5) Body-worn SAR compliance is not applicable for the operations of this device and has not been tested.
 - 6) The reported SAR values are for a maximum duty factor of 50 %.
 - 7) This filing is only applicable for the operating modes identified on this grant of equipment approval.
 - 8) End-users must be informed of the body-worn operating requirements for satisfying RF exposure compliance.
- G) SAR results listings (see KDB pub. 690783).
- H) Occupational / Controlled RF exposure compliance requirements.
- I) Modular transmitter requirements (see KDB pub. 996369).
 - 1) This modular transmitter is approved for use in the host device described in this filing and may operate in conjunction with other mobile and portable transmitters that have satisfied the RF exposure requirements contained in the FCC rules for operating within that host device.
 - 2) This device consists of a WPAN module embedded in a wireless handset accessory, as described in this filing, and is approved for OEM integration only.
 - 3) This WPAN module is approved for use with wireless handsets manufactured by the grantee only and is not approved for any other use, (Grantee Name).
 - 4) The grantee must determine that the RF exposure and emissions requirements have been satisfied for a wireless handset to operate with this device.
 - 5) The grantee must provide OEM integrators, or end-users if marketed directly to end-users, with installation and operating instructions for satisfying RF exposure requirements.

- 6) The grantee must coordinate with OEM manufacturers to determine that the RF exposure and emissions requirements have been satisfied for a wireless handset to operate with this device
- 7) OEM manufacturers must be informed of the compliance requirements for using this device with their products.
- 8) Distributors and end-users must be informed of the compliance requirements for using this device.
- J) Multiple simultaneous transmitter operating configurations.
- K) MIMO parameters.
- L) U-NII devices: dynamic frequency selection (DFS); indoor-only (see KDB pubs. 443999, 848637).
- M) Non-U.S. bands and modes.
- N) Extended frequencies: non-FCC U.S. frequencies contiguous with FCC allocations (see KDB pub. 634817).
- O) Booster, repeater, amplifier devices: powers and bandwidths are single- or multi-channel; system configuration (see KDB pub. 935210).
- P) Hearing aid compatibility (see KDB pub. 285076).
- Q) Software defined radios (see KDB pub. 442812).
- R) Software configurations (see KDB pub. 594280).
- S) Part 90 subpart Z contention-based protocol.
- T) Part 27 2300 MHz band duty cycle.
- U) Part 90 subpart R public safety broadband 3GPP LTE requirements.
- V) Part 90 narrowbanding.
- W) Permissive changes – continuation of preceding grant comments; amendments per the each permissive change filing.
- X) Grants with special attestations.
- Y) Waiver conditions.
- Z) Amplifiers for Part 15 intentional radiators.

III. Sample partial and full grant comments and other considerations for various device types

- A) Phone handsets tested both with and without specific belt-clips, holsters or similar accessories that are supplied with the device or sold as optional accessories:
 - 1) EXAMPLE – SAR compliance for body-worn operating configurations is limited to the specific configurations tested for this filing. Body-worn operations are restricted the specific belt-clips / holsters / accessories tested for this filing, and to belt-clips, holsters or similar accessories that have no metallic component in the assembly and must provide at least xx cm separation between the device, including its antenna whether extended or retracted, and the user's body. End-users must be informed of the body-worn operating requirements for satisfying RF exposure compliance.
 - 2) See also KDB pub. 690783, and July 2006 FCC-TCB conference-call notes about power ratings on grants.

- B) U-NII device with DFS:
 - 1) EXAMPLE – Output power is conducted. The antenna(s) used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter. Users and installers must be provided with antenna installation instructions and transmitter operating conditions for satisfying RF exposure compliance.
 - 2) EXAMPLE – Output power is conducted. Operations in 5.15-5.25 GHz and 5.47-5.725 GHz bands are for indoor use only. Device operates with specific antennas in MIMO configurations as described in this filing. The antenna(s) used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter. Users and installers must be provided with antenna installation instructions and transmitter operating conditions for satisfying RF exposure compliance.
 - 3) EXAMPLE – Output power is conducted. Outdoor operation is subject to the professional installation instruction requirements as described in the User's Manual. The antenna(s) used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter. Users and installers must be provided with antenna installation instructions and transmitter operating conditions for satisfying RF exposure compliance.
 - 4) NOTE Use of the ND coded note is optional, and is per discretion of the applicant.

- C) Push-to-talk portable device qualified to apply Occupational / Controlled SAR limits:
 - 1) EXAMPLE – This transmitter may operate with the antennas tested for this filing in push-to-talk held-near-face and body-worn configurations. Body-worn SAR compliance is limited to the specific belt-clip and audio accessory configurations tested for this filing, and to belt-clips, holsters, or similar accessories that have no metallic component in the assembly and which provide at least 2.5 cm separation between the device, including its antenna, and the user's body. This device must be restricted to work related operations in an Occupational / Controlled RF exposure environment, not exceeding a maximum transmitting duty factor of 50 %. All qualified end-users of this device must have the knowledge to control their exposure conditions and/or duration to comply with Occupational / Controlled SAR limit and requirements. A label, as

described in this filing, must be displayed on the device to direct users to specific training information for meeting occupational exposure requirements, and users must be provided with the training information.

- 2) EXAMPLE – Output power listed is rated conducted; maximum conducted output power is $(X + 20 \text{ percent}) W$ as allowed by 47 CFR 90.205(s). Output is at the antenna terminal of the device and must not exceed that tested for SAR compliance.

D) Vehicle-mounted push-to-talk devices:

- 1) EXAMPLE – This transmitter must be restricted to work related operations in an Occupational / Controlled RF exposure environment, not exceeding a maximum transmitting duty factor of 50 %. All qualified end-users of this device must have the knowledge to control their exposure conditions and/or duration, and the exposure conditions and/or duration of their passengers and bystanders, to comply with the General Population / Uncontrolled MPE limit and requirements. A label, as described in this filing, must be displayed on the device to direct users to specific training information for meeting occupational exposure requirements. Users must be provided with the training information, antenna installation and transmitter operating conditions for satisfying RF exposure compliance. The antenna(s) used for this transmitter must be installed to provide configurations and separation distances as described in this filing.

E) e-reader devices:

- 1) EXAMPLE – Device must operate with a maximum transmitting duty factor of XX %, as documented in this filing. Grantee is responsible for monitoring usage transaction activities to ensure maximum transmitting duty factor is not exceeded.

F) Module device with SAR evaluation per KDB pub. 616217 D03 netbook/notebook supplement:

- 1) EXAMPLE – This module may only be installed by the OEM or an OEM integrator. The antenna(s) used for this device must be installed to provide a separation distance of at least XX cm from all persons, and the separation distance between the main and auxiliary antennas shall be at least YY cm when positioned horizontally and ZZ cm when positioned vertically. Grantee must coordinate with OEM integrators to determine applicable host configurations to ensure RF exposure compliance, including simultaneous transmission SAR requirements according to KDB 616217 pub. D03 Supplement documentation.

G) Limited single modular approval, e.g., connectorized PCI-Express device package, not intended for use in netbook or notebook computer portable devices, etc.:

- 1) EXAMPLE – Limited modular approval. Power output listed is conducted. Approval is limited to OEM installation only. The antenna(s) used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other transmitter. OEM integrators must be provided with antenna installation instructions. OEM integrators and end-users must be provided with transmitter operation conditions for satisfying RF exposure compliance.

H) User-installed peripheral transmitter, e.g., USB dongle:

- 1) SAR compliance has been established in the host product(s) with slot configurations as tested in this filing, and can be used in host product(s) with substantially similar physical dimensions,

construction, and electrical and RF characteristics. End-users must be provided with specific information required to satisfy RF exposure compliance for all final host devices. Compliance of this device in all final host configurations is the responsibility of the Grantee.

- I) Evolving and legacy multiple-simultaneous transmitter and collocation policies:
 - 1) The usual no-collocation grant remark is taken to mean that some configurations may be subject to separate Equipment Authorization, e.g., multi-transmitter products, composite system configurations.
 - 2) Authorized collocations are as documented within the filings for specific FCC ID(s), or per exceptions or conditions established by FCC where applicable (e.g., KDB pub. 447498).
 - 3) Example grant remark:
 - i) The antenna(s) used for this transmitter must not be collocated or operating in conjunction with any other antenna or transmitter within a host device, except in accordance with FCC multi-transmitter product procedures.
- J) Example non-US modes: This device contains 900 MHz GSM functions that are not operational in U.S. Territories; this filing is applicable only for 1900 MHz PCS operations.
- K) Class II permissive change filings must carry-over grant remarks from the original application under an FCC ID, but can amend and/or expand remarks from preceding filings under the FCC ID.
- L) Mobile transmitters identified in § 2.1091 that satisfy the categorical exclusion requirements of § 2.1091:
 - 1) EXAMPLE – The antenna installation and operating configurations of this transmitter, including [any applicable source-based time-averaging duty factor,] antenna gain and cable loss must satisfy MPE categorical exclusion requirements of § 2.1091. [This device must transmit with a source-based time-averaging duty factor not exceeding -- %.] The antenna(s) used for this transmitter must be installed to provide separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter. Users and installers must be provided with antenna installation instructions and transmitter operating conditions for satisfying RF exposure compliance.
- M) Pico basestations, micro basestations and other transmitters operating with fixed-mounted indoor antenna(s) that satisfy MPE categorical exclusion limits of § 2.1091:
 - 1) The antenna(s) used for this transmitter are to be fixed-mounted on indoor permanent structures providing a separation distance of at least 20 cm from all persons during normal operation. The maximum radiated output power at each antenna [, including any applicable source-based time-averaging duty factor,] must satisfy the MPE categorical exclusion requirements of § 2.1091. [This device must transmit with a source-based time-averaging duty factor not exceeding -- %.] RF exposure compliance may need to be addressed at the time of licensing, as required by the responsible FCC bureau(s), including antenna co-location requirements of § 1.1307(b)(3).

- N) Fixed transmitters that operate with outdoor antennas and identified in Table 1 of § 1.1307:
 - 1) **EXAMPLE** – The antenna(s) used for this transmitter must be fixed-mounted on outdoor permanent structures. RF exposure compliance is addressed at the time of licensing, as required by the responsible FCC bureau(s), including antenna co-location requirements of § 1.1307(b)(3).

- O) All other fixed transmitters operating with outdoor antenna(s) and have NOT been identified in Table 1 of § 1.1307:
 - 1) The antenna(s) used for this transmitter must be fixed-mounted on outdoor permanent structures with a separation distance from all persons during normal operation as documented in this filing. The peak conducted output power at each antenna terminal must not exceed --- W and the peak radiated output power must not exceed --- W EIRP. Users and installers must be provided with appropriate antenna installation instructions and transmitter operating conditions, including antenna co-location requirements of § 1.1307(b)(3), for satisfying RF exposure compliance.



**ANNEX A
Electronic filing (e-filing) system alphanumeric coded notes**

id	description
10	TV Interface Device combined with TV Broadcast Receiver.
11	Grant Reissued this date to correct error in listed FCC ID Number
12	This is a grant of Certification because receiver will tune frequencies allocated to Citizens Band Service. Section 2.904(d) of the Commission's rules applies to this grant.
14	The equipment listed hereon complies with the 14dB noise figure requirements.
16	If the subject device requires shielded interface cables to ensure compliance, the user's manual must advise the user of this requirement.
17	Computing devices into which this device is installed must employ shielded interconnect cables.
18	This device must be supplied with a shielded A.C. power cord if one is required to ensure compliance.
19	This device must be marketed with a shielded interface cable which incorporates ferrite cores equal in quantity and type to those used during Certification testing.
20	All electrical and mechanical devices employed for spurious radiation suppression, including any modifications made during certification testing, must be incorporated in each unit marketed.
21	This grant is issued to permit marketing only when a ferrite loaded video cable or split ferrite core equivalent to the type that was used during certification testing is marketed with each unit.
22	Keyboard connector must be chassis mounted with ferrite material encasing connecting leads to motherboard.
23	This grant is issued to permit marketing of equipment only when the computer covered under this grant is provided with a keyboard as specified in the application for certification. The keyboard supplied must incorporate an internal ferrite within the keyboard case and an external ferrite at the connector end of the keyboard cable.
24	This grant is issued to permit marketing only when a ferrite loaded video cable or split ferrite cores equivalent in number and type to those used during certification testing are marketed with each unit.
25	If a keyboard is provided with this device, it must incorporate a ferrite core at the connector end of its shielded interface cable.
28	An AC adapter incorporating a ferrite core at the connector end of its DC line must be provided with every unit sold.
36	Certain antennas used with this equipment require a minimum cable length, or have output power limitations as documented in the application.
41	Installation of this device must not be readily accessible to human subjects closer than 20 cm.
43	25 Channel Cordless Phone (46-49 MHz)
44	Unit must be installed so that users cannot approach the radiating element of this transmitter no closer than 24 inches.
45	Marketing must be restricted to Federal, state and local law enforcement, highway maintenance or safety organizations, or organizations performing highway maintenance or improvements in accordance with terms specified by such organizations.
47	This grant is issued subject to the condition that the transmitter covered hereunder will not be marketed with any capability to coordinate its hopping sequence with the hopping sequence of other transmitters, or vice versa, for the purpose of avoiding the simultaneous occupancy of individual hopping frequencies by multiple transmitters.
68	This grant does not pertain to equipment approval requirements under Part 68.
71	This grant is issued under waiver of Section 15.7 of the Rules. It becomes invalid for units manufactured after the expiration date of that waiver.
80	Grant issued under waiver for measurements above 1000 MHz, measurement procedure MP1 and Sections 15.201-15.215 of the FCC Rules. Measurements were made using T-7001 and Section 15.184 applies.
82	Grant issued under waiver for measurements above 1000 MHz.
95	Pursuant to Section 15.121 of the Commission's Rules and Regulations, the manufacturing and marketing of this device is limited to entities described in Title 18 U.S.C. 2512(2).
AC	This entry shows power ratings at upper extremity of the frequency range indicated.
AG	Acceptable for airborne mobile use under Part 22 with receiver designed to automatically revert to the signaling channel frequency upon completion of a call.
BB	Power output continuously variable from value listed to less than 0.5 watts.
BC	The output power is continuously variable from the value listed in this entry to 5%-10% of the value listed.
BD	The output power is continuously variable from the value listed in this entry to 10%-15% of the value listed.
BE	The output power is continuously variable from the value listed in this entry to 15%-20% of the value listed.
BF	The output power is continuously variable from the value listed in this entry to 20%-25% of the value listed.
BG	The output power is continuously variable from the value listed in this entry to 25%-30% of the value listed.
BH	The output power is continuously variable from the value listed in this entry to 30%-35% of the value listed.
BJ	The output power is continuously variable from the value listed in this entry to 35%-40% of the value listed.
BK	The output power is continuously variable from the value listed in this entry to 40%-45% of the value listed.
BL	The output power is continuously variable from the value listed in this entry to 45%-50% of the value listed.
BM	The output power is continuously variable from the value listed in this entry to 50%-55% of the value listed.
BN	The output power is continuously variable from the value listed in this entry to 55%-60% of the value listed.
BO	The output power is continuously variable from the value listed in this entry to 60%-65% of the value listed.
BP	The output power is continuously variable from the value listed in this entry to 65%-70% of the value listed.
BQ	The output power is continuously variable from the value listed in this entry to 70%-75% of the value listed.

id	description
BR	The output power is continuously variable from the value listed in this entry to 75%-80% of the value listed.
BS	The output power is continuously variable from the value listed in this entry to 80%-85% of the value listed.
CC	This device is certified pursuant to two different Part 15 rules sections.
CO	Transmitter meets technical requirements only for use at coast stations.
CP	Transmitter meets technical requirements for use at coast and ship stations.
CR	This equipment has been represented by the grantee as being capable of meeting the applicable requirements of the RTCM SC-65 report as it applies to compulsory installations. Reference Section 80.825 of the Commission's Rules.
CS	Transmitter meets technical requirements only for use at ship stations.
ED	Acceptable only for licensing at noncommercial educational FM broadcast stations.
EF	This device may contain functions that are not operational in U.S Territories except as noted in the filing. This grant has extended frequencies as noted in the filing and Section 2.927(b) applies to this authorization.
GM	This unit meets requirements for GMDSS use as contained in Subpart W of Part 80.
HC	This equipment complies with the hearing aid compatibility technical requirements of Section 20.19 of the rules.
HX	This mode of operation has the means to permit held to the ear telephone calls but has not been tested for hearing aid compatibility. The device supports other modes which have been found to be compliant with the HAC rules.
IF	User is cautioned to ensure that the driver transmitter and the power amplifier are properly interfaced so that the resultant combination will operate within FCC technical requirements.
IT	Implanted Transmitter
KK	Acceptable for monochrome transmission only.
M4	Operation of this unit is limited to use at stations licensed for use under Part 74 of FCC Rules.
MO	This Multiple Input Multiple Output (MIMO) device was evaluated for multiple transmitted signals as indicated in the filing.
ND	This UNII device complies with the Transmit Power Control (TPC) and Dynamic Frequency Selection (DFS) requirements in Section 15.407(h).
NK	Capable of operation within 3.0 kHz authorized bandwidth.
NR	Transmitter capable of automatic reduction of power to 150 watts or less (plate input power for A3 emission or peak envelope power for single sideband emission) on predetermined channels.
OV	Unit meets current Great Lakes and Bridge-to-Bridge requirements.
OW	Unit meets requirements of Section 80.80(a)(4).
QQ	Not equipped for automatic transmission of call sign. Refer to Section on 74.750(c)(7) for TV translators or Section 74.1250(c)(7) for FM translators.
RC	This transmitter is approved for use only in the Radio Control Service. This is not approved for general use as an RF link or for use in any other service. Unit may not include a plug-in crystal with external access to the user.
RS	This device incorporates a restricted contention based protocol. It is not capable of avoiding co frequency interference with devices using all other types of contention-based protocols. Operation is restricted to the 3650-3675 MHz band.
SA	Smart antenna system that uses beam steering or beam forming capabilities to form multiple beams.
SD	Acceptable for radio beacon purposes only in survival craft stations of vessels documented by the United States Treasury Department, Bureau of Customs.
SV	Unit has been shown to be capable of meeting the technical requirements for portable survival craft radiotelephone transceivers.
TC	This TVP device operates in Mode I (client mode) under control of a fixed device or a portable device in Mode II
TD	This device Incorporates geo-location and database access mechanism per 15.717(b)
TP	This TVF device determines geo-location by a professional installer
TS	This device incorporates spectrum sensing per 15.717(c)
UR	This device incorporates an unrestricted contention based protocol. It is capable of avoiding co frequency interference with devices using all other types of contention-based protocols.
VN	Transmitter portion meets technical requirements for use as a non-portable unit pursuant to the Vessel Bridge-to-Bridge Radiotelephone Act.
VQ	When used pursuant to the Vessel Bridge-to-Bridge Radiotelephone Act, transmitter is acceptable as a portable unit, only on foreign vessels. Transmitter not acceptable for use on U.S. vessels pursuant to this Act.
VV	Power output shown is the maximum rated value for transmitter units which do not contain diplexer.
W	Power output shown is the maximum rated value for transmitter units which include a Motorola Type TLN 6808A diplexer between final rf amplifier stage and the antenna output terminals of the entire unit.
YD	Has capability for less than 3 channels and therefore must be used together with additional transmitters in ship stations to make up the required station frequency complement.
YE	Has capability for less than 2 channels and must be used with additional transmitters to make up required station frequency complement.