

1.1 Description

This document addresses the applicability of the US Government's J/F-12 and DD Form 1494 classification documents to Quasonix' TIMTER transmitter product line, and discusses the "Note to Holder" provisions for adding new nomenclatures to the existing J/F-12.

1.2 Nomenclature

The earliest models of the Quasonix transmitters were referred to as Tier I Missile Test Transmitters (TIMTER), because they were intended for missiles and offered only ARTM Tier I modulation. Although the product line now includes much more than ARTM Tier I, and they are in widespread use on many platforms besides missiles, they are still referred to as the TIMTER. The TIMTER is available in a number of variations, depending on the options specified at the time of order. The features and modes installed in each unit are identified in the model number, as depicted in Figure 1.

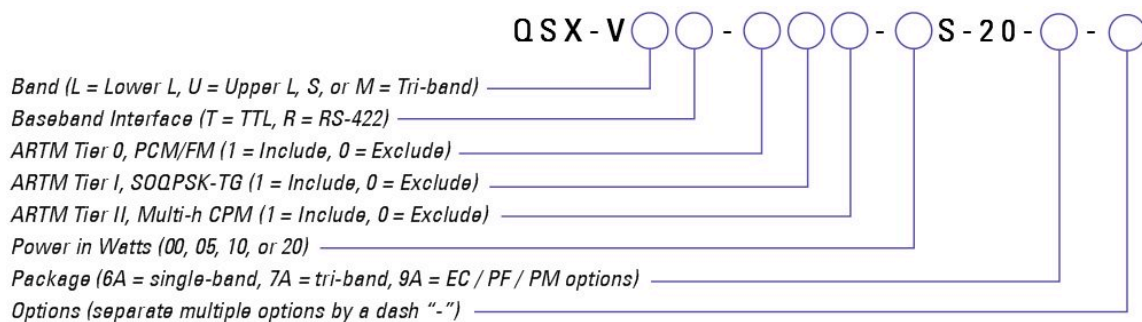


Figure 1. Transmitter Ordering Method

The available options include (but are not limited to):

- PS Multiple presets (specify 2, 4, 8, or 16)
- WV Wide input voltage range
- CG Clock generator output
- RN Randomizer output
- DP Dual power (two settings, "full" and "low" – specify)
- VP Variable power (31 settings, spanning 24 dB)
- CF Clock-free baseband interface
- HR Increases max bit rate to 28 Mbps (14 Mbps for Tier 0)
- LR Decreases min bit rate to 50 kbps (25 kbps for Tier 0)
- EC Forward Error Correction / Turbo Product Codes
- LS Lower S-band (2200.5 MHz to 2289.5 MHz) only
- US Upper S-band (2289.5 MHz to 2394.5 MHz) only
- PF Parallel Port Frequency Programming
- PM Parallel Port Mode Selection
- AC Automatic carrier wave output

The model number identifies the configuration of the unit. For example, model number QSX-VST-110-10S-20-6A-RN defines a unit configured as follows:

QX	Quasonix product
V	Variable bit rate
S	S-band
T	TTL interface
110	Tier 0 present, Tier I present, Tier II absent
10S	10 Watt RF output, "S" model power supply ("E" model obsolete)
20	Standard maximum bit rate = 20 Mbps
6A	6 cubic inch package, "A" configuration
RN	Randomizer output option

1.3 J/F-12 Certification

The Quasonix transmitter received the J/F-12 certification 09140 in October of 2007 as a result of its DD Form 1494 submittal through NAWCWD China Lake.

The specific manufacturer's part number appearing on the DD Form 1494 is: QSX-VSR-111-5E-20-6A.

1.4 Note-To-Holder Provisions

The Department of Defense Handbook: Guidance For Controlling Electromagnetic Environmental Effects On Platforms, Systems, And Equipment, MIL-HDBK-237B¹, states the following:

"A Note-To-Holder is a provision provided for within the 'J-12 Procedures' that permits some changes to be made to existing frequency allocations. The types of modifications for which a Note-To-Holder may be used include:

- a. Adding nomenclature(s) of equipment which has essentially the same technical and operating characteristics to those equipment with a frequency allocation that has been previously approved by the MCEB."

1.5 J/F-12 Applicability

The Quasonix transmitter's basic signal processing path is common to all variants, regardless of frequency band(s), baseband interface, modulation, output power, physical package, or option(s) are implemented. Therefore, the data in the DD Form 1494 applies across the entire product line of TIMTER transmitters.

The J/F-12 certification should apply to any and all variants of the Quasonix TIMTER transmitter with a Note-To-Holder to designate that the unit has "...essentially the same technical and operating characteristics..."

¹ <http://www.tscm.com/MIL-HDBK-237b.pdf>