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One World, One **EMC** Solution

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January 25, 1999

Greg Czumak
FCC

Subject: FCC ID LB32G4-TX-MOD
731 Confirmation Number EA92198
Correspondence Reference Number 5578

Dear Greg,

In reply to each item in your Jan. 15, 1999, e-mail which is attached at the end of this document.

1. Requirement for module approval.
 1. Per our photos provided in the report the RF section is shielded and will be remain the same, regardless of enclosure.
 2. Buffered Modulation inputs (Audio and video) are provided inside the shielded RF section.
 3. Power supply regulation is provided by the PCB external to the RF Section. This PCB will not change and is part of the module approval.
 4. Antenna is not removable.
 5. Was tested in stand-alone configuration.
 6. FCC ID is labeled on the module and a second label will be applied to the outside of each enclosure. An example was sent as through the "Add attachment" button of the FCC Electronic Filing page.
2. The RF portion and power regulation board with audio and video inputs is being authorized as a module. Please see attestation file for this from Veccom sent through the add attachment button of the FCC electronic filing page.
3. In the future we will use the EUT actual tuning range.

This device does not fall under section 15.247 and as such should not pose a threat to RF Safety.

Thank you,

Rick Linford
Facility Manager/Regulatory Engineer
DNB Engineering, Inc (UT)



To: Rick Linford, DNB Engineering, Inc.
From: **Greg Czumak**
gczumak@fcc.gov
FCC Application Processing Branch
Re: FCC ID LB32G4-TX-MOD
Applicant: Veccom Co Ltd
Correspondence Reference Number: 5578
731 Confirmation Number: EA92198
Date of Original E-Mail: 01/15/1999

1. Copied below is our modular approval policy. Please specifically state how the EUT meets each of the criteria listed. I note that the required second label has not been submitted. Please be sure to do that.
2. Please verify that both the RF portion and the power regulation board, with audio/video inputs, are being authorized as a module (and not the RF section alone).
3. FYI: the tuning range which you fill out should indicate the actual tuning range of the EUT, and not simply identify the band in which it will operate. This has been Commission policy for many years now.

There are no official FCC Rules that permit authorization of a transmitter as a module but the following standards have been uniformly applied as a Commission policy in support of industry needs. For a module to be approved, it must satisfy the following requirements:

- (1) a modular transmitter must have its own RF shielding
- (2) a modular transmitter must have buffered modulation/data inputs (if such inputs are provided)
- (3) a modular transmitter must have its own power supply regulation
- (4) a modular transmitter must have an antenna which complies with the requirements of Section 15.203 (permanently attached or employs a "unique" antenna coupler)
- (5) a modular transmitter must be tested in a stand-alone configuration, i.e., the antenna, AC or DC power and data input/output lines must be connected to the module but, the module must not be inside another case during testing
- (6) a modular transmitter must be labelled with its own FCC ID number, and if the FCC ID is not visible when the module is installed inside another device, then the outside of the device into which the module is installed must also display a label referring to the enclosed module. This exterior label can use wording such as the following: "Contains Transmitter Module FCC ID: XYZMODEL1" or "Contains TXFCC ID: XYZMODEL1." The exact wording is not specified in our Rules (since modules are not specifically addressed), so you may use similar wording which expresses the same meaning.

The only other issue that may need to be addressed is the RF exposure limit mentioned in Section 15.247(b)(4) of the rules for spread spectrum transmitter operation. All other sections of Part 15 do not possess enough power to present a problem with the RF exposure limits. However, a spread spectrum transmitter operated at permissible power levels may pose a threat to RF safety, therefore, compliance with the RF exposure limits must be addressed for spread spectrum transmitter modules.

Please note that if modular approval is granted for a device, the grant of authorization will specifically use the term "module."