

## **Application for FCC Certification For Model SSBXL20-10 MEDEX**

A Digital Field Modification Kit, manufactured by:

MEDEX, LLC  
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The Grantee Code for MEDEX, LLC is SSB.

The MEDEX Model “SSBXL20-10 MED” is a Digital Field Update Kit to be used with LARCAN TTC Models BSK9A3XL20UU, VU, MU and BSK9A3XL10UU, VU, MU Translators. The kit consists the MEDEX P617 Processor, filter, all necessary parts, and labels to convert the above translators to operate as a hetrodyne digital translator.

The following information and exhibits are submitted for type certification of the MEDEX UHF translator field modification kit SSBXL20-10MED for digital operation pursuant to parts 74, sub part G, of the FCC rules. The unit tested specifically for this application was operated on channel 23. This channel was used to show compliance with the RNSS, GPS filter requirement. This unit will meet or exceed the required specifications as per sections 74.794, 74.795, 74.682, 74.750, 74.790, and 74.796

The MEDEX P617 Processor used in the update kit is designed for 8VSB Digital Television. The Processor is a frequency agile input and output processor, containing a saw filter, TCXO, AGC circuits and auto shutoff circuits (The P617 can downconvert any VHF/UHF channel to a 44MHz IF. The upconverter converts this 44 MHz signal to any VHF,UHF output channel, with a signal level necessary to drive the BSK9A3XL20UU, VU, MU and BSK9A3XL10UU, VU, MU Translators for digital use.

The P617 is manufactured by CADCO to MEDEX Specifications. See Exhibit 7.

2.933(b) & 2.1043

The original ID of the translator being modified is BKS9A3XL20UU,VU,MU and BKS9A3XL10UU,VU,MU, see exhibit A.

The input amp, AGC amps, upconverter, local OSC are removed – the MEDEX P617 Processor takes the place of the removed modules. The power supply, voltage and current measuring circuits, 1 Watt, 5 Watt, 20 Watt amps are not change from the original. The output power metering circuits are modified and calibrated for average digital power in a 6 MHz band width and a low pass filter is installed. Where the equipment differs from the original, the necessary test and measurements are included in this application. Where there is no change and the translator continues to represent the original, it will be referenced to the original type #'s, I.E. BKS9A3XL10UU,VU,MU, BKS9A3XL20UU,VU,MU. The BKS9A3XL10UU,VU,MU (10 Watt translator) is identical to the BKS9A3XL20UU,VU,MU (20 Watt). It is operated at 10 Watts instead of 20 Watts analog. The references herein that are required on FCC Form 731 for certification of the SSBXL20-10MED with the attached reference and exhibits as per section 2.1033(b)1 thru 7 and 2.1043(d) using section 2.933, the abbreviated certification procedure. The MEDEX Processor and 3 Pole Filter and the Low Pass Filter combination will be sold to operators of other manufactured equipment who want to do a custom modification pursuant to section 74.796, all sections. Along with the processor, a EMR Low Pass Filter and a 3 Pole Band Pass Filter and the temperature specifications and filter response and a copy of part 74.795 and 74.796 of the rules.