Radio World Article on BEXT STL Systems

by John Buckham, KKIQ Radio, Livermore, California

BEXT LC-STL systems will delight the value-conscious but quality-aware broadcaster with their low purchase price and numerous features. We have two STL links running here at KKIQ and both of them have been up many years in less than hospitable environments and have caused absolutely no problems and have exceeded my expectations greatly.

The LC-STL composite aural transmitter is available in three power levels, you pay for the power you really require, the system is available in 1.5, 6 and 15 watt versions. All of the transmitters can run on 12 volts DC for back-up or unusual applications, such as solar powered mid-hops allowing for added possibilities at undeveloped sites. The LC family of STL's are frequency synthesized allowing for easy frequency changes: you don't need to remove the top cover, the frequency selectors are right on the front panel behind a screw-on aluminum cover plate. You may never need to worry about this as BEXT completely tests each STL system on your frequency before shipment.

BEXT also has an optional digital encoder/decoder that is available, it allows for up to four channels of 15Khz audio to be sent to your transmitter, perhaps two for your stereo programming, one for your SCA and one for remote control data.

Speaking of outputs, the BEXT LC-STL receiver has three composite outputs - one is fixed level, one is adjustable via a trim pot on the rear apron, and a third inverted polarity output. The third output is invaluable to operate a booster system where you may wish to feed the booster via an ICR, it will allow you to more closely match the modulation envelope of your main transmitter.

On the front panel you get an intuitive bar graph display that's selectable between various operation parameters, including a unique peak-hold function that makes adjustment of audio and power easy. Both of our systems have Lexan veneer on the front and rear panel that resist dirt and fingerprints well. Service is a breeze with the units being modular. Both the receiver and transmitter include a fan for cool operation in the most demanding environments.

Installing the unit was just like any other STL system, the R.F. output is a standard N connector, the composite inputs are the usual BNC connectors and the power cord connects via the now standard IEC, connector/fuse block. Both the receiver and transmitter are three rack spaces high.

Both the STL systems are used as ICR's at KKIQ to feed boosters for KKIQ's signal. These boosters are required due to the terrain within the KKIQ service area. One of the hops is 19 miles, the other is 21. We have never had any noise or fading with either system. One reason for this is because of the excellent sensitivity of the units, on the bench I was able to get 60 dB SINAD with just a -71 dBm test signal! This is far better than BEXT specifies in their manuals. Another instance of how good the BEXT receiver is has to do with an instance of a wayward multi-point distribution transmitter putting a huge spur out on our ICR frequency. I was alerted to this when one of the links had become somewhat noisy, but still provided just adequate S/N ratio. When we investigated this change in performance we shut the transmitter down - only to find the interfering signal down only 7 dB from the main carrier . . . and the system was still working providing a useable signal! A most noteworthy accomplishment for any composite STL system.

Let me say this, I've been happy with all of the BEXT purchases I've made, transmitters, exciters, STL systems and link receivers, all of my experiences with BEXT equipment and service have been positive. As the need arises I will buy more.

[*John Buckam may be reached at KKIQ FM, tel.* ***925 - 455 4500***]