Over 10 years of trouble-free service using *BEXT* Tube & Solid State Transmitters

(Endorsement letter from Bext customers)

When it became time for KGDN-FM to choose a new transmitter for our power increase, we turned immediately to BEXT. We had already completed 2 years of operation as a 3KW Class A station using a BEXT T-1800 Amplifier with BEXT Exciter and Solid State driver; And our Sister Station, KSPO in Spokane, WA had about a year using a Hybrid combination of 2 BEXT T-1500 amplifiers. The stability & reliability of these units had proven them to be a great buy in lower powered transmitting units.

Our specification called for a transmitter output of 3450 watts, so we would be pushing a 3KW transmitter and a 5KW unit would be overkill. The folks at BEXT asked us to look at their 'L' Series of FM transmitters.
The BEXT 'L' Series is made up of 5 different transmitters rated from 4KW to 30KW with the model number naming its output power. The L4 & L7 use a single YU148 triode tube & the L10, L20 & L30 use a 4CX20,000C. All are compact in construction, being built into a standard 19' cabinet with simple straight forward amplifier designs that are easy to install and maintain.

KGDN liked what we saw and ordered an L4. Upon its arrival I was immediately impressed with the construction. All components are mounted in a framework constructed of welded stainless steel boxed metal. The back door and both side panels are easily removable. And the front upper panel removes to allow access to the cavity and the tuning controls, The cooling chimney and the 1 5/8" waveguides are all chromed making the L4 almost too attractive to put the covers on. The Quarter Wave stub and Harmonic Filter are all mounted inside the box making placement of this transmitter an easy task, The waveguides are connected using the European sliding collar - screw together assemblies which are adapted to a standard EIA 1 5/8" flange at the output on the top of the transmitter. In lieu of electrically interlocked access doors, the 'L' series uses a key locked safety system. At the bottom of the transmitter is a Safety model consisting of a rotary Line AC on-off control, a lever operated shorting system and a key lock. These 3 items are mechanically interlocked so that the key cannot be removed unless the AC is off and the shorting bar down (shorting the primary of the power transformer and plate volts to ground). The back door is key locked as is the cooling chimney. The cooling chimney is in two telescoping pieces which slide upward (once unlocked) to allow access to the tube within the cavity assembly. Each transmitter comes with only one key so you theoretically cannot operate it with the covers off and the key removed from the Safety module.

Assembly and installation was quite simple. The Power Supply assembly is complete, comes mounted on wheels & is shipped separately. With the back and side covers removed from the L4, the lower brace bar is removed at the bottom rear of the transmitter. The Power Supply is then wheeled into place. All electrical connections to the transmitter are made with either plug-ins connectors or clearly marked screw terminal barrier strips. Reinstall the brace bar and hook up the RF output and the back of the unit is ready to go.

Three Phase AC is hooked at an Isolation transformer Just above the Safety module in the lower front of the transmitter. (the L4 is also optionally available with single phase power input). I routed the AC through a metal conduit into the top of the unit. The KGDN L4 uses a BEXT solid state driver and a BEXT 20 W Exciter. Both of these units fit into the rack space provided in the lower front half of the L4. And their was room left over for me to install the audio processor as well making a one piece, complete transmitting package. This was ideal for us as we lease space in a transmitter building that is already crowded with two other transmitters and two other racks.
With assembly complete and all hook ups made, I put the side and back covers back on, inserted the key in the safety modules, raised the shorting bar and turned the AC on for the first time.

The L4 came up on filaments for the first time and the quiet blower came on. A start up time delay of about five seconds is indicated by a flashing green LED on the control panel. After the time delay is complete you get a white Ready light. I allowed about a 10 minute warm-up. A small momentary contact button applies the Plate Voltage. I advanced the exciter power and started the tune up process. The Input tune/match control to the final amplifier is not readily obvious as it is hidden behind a screw just above the input coax connection. Once located it was easy to get a perfect impedance match with no VSWR to the Driver amplifier. I adjusted the Tune & Load controls as I advanced the Exciter power & had the unit running at its max output within about 5 minutes. The KGDN L4 is presented as a 4 kW transmitter, but with 20 W from the Exciter and 200 W from the Driver this transmitter puts out 6400 Watts! If in the future we desire to upgrade to even more power, we can bolt in a larger driver, wheel in a larger power supply in the back and we'll have an instant L7!

We have had the BEXT L4 on line here at KGDN-FM since early November 1993. It has performed flawlessly! I have had occasion to speak many times to Dennis Pieri and other staff members at the BEXT offices in San Diego, CA. They take great pride in their product and are constantly working to make it even better. As of this writing I have on my desk a parts kit that was Express shipped to make a circuit improvement in the Remote Plate Current Sample.
So you can see that we at KGDN are very impressed with this new BEXT L4 Transmitter and the company behind it.
We look forward to a long and trouble-free association with this transmitter.

Bill Glenn, Spokane, Washington (*Bill Glenn may be reached at Tri-Cities Radio, tel. 509 783 0783*)