

USER REPORT

KCBS Relies on Modulation Sciences

by Ed Huerta
Supervisor, Broadcast Maintenance
CBS Television Network

LOS ANGELES

As supervisor of broadcast maintenance for the CBS Television Network in Los Angeles, I am responsible for monitoring the signals of both the VHF station, KCBS, Channel 2 and the UHF Station, Channel 60, which broadcasts in HDTV. We also run a local cable system for our headquarters building.

We have two msi-320 Precision Video Demodulators from Modulation Sciences. We use one to decode the off-air signal of Channel 2 and monitor the cable system. With the other, we receive the off-air HDTV signal from Channel 60. We then use the demodulator's IF output to drive our General Instrument CATV modulator, which re-transmits the signal to Channel 12 in our cable system.

The msi-320 consistently handles both of these jobs very well. It not only gives us the reliability we require but also the convenience and ease of use that make my job a lot easier.

We know our measurements are accurate because every msi-320 is individually tested and calibrated. Each unit has serial-numbered production test data traceable back to several government standards laboratories, including the National Institute of Standards and Technology.

And speaking of calibration, I often compare notes with my colleagues at other stations, who have told me that annual calibration of their video demodulators can easily exceed 10 percent of the cost of the unit. Fortunately, that's a problem we don't have. In fact, calibration of the msi-320 is a set

price of \$250 because it needs so few internal adjustments, so calibrations are not only less expensive but needed less frequently.

RELIABILITY IS PRIME

The last thing any TV station needs is equipment downtime, so reliability is a prime consideration for us. And the fact is there are very few things that can go wrong with the msi-320.

I mentioned that we use the IF output of the msi-320 to drive the modulator that transmits the Channel 60 signal to Channel 12, so the shape of the IF passband is ultra critical. Since the msi-320 uses a proprietary SAW (Surface Acoustic Wave) Nyquist filter, that's one less thing we need to worry about.

The front panel of the msi-320 is free of complicated controls. One dual-function knob, a single headphone jack, and a two-line menu display — that's the entire front panel. All we need to set up and perform our measurements.

The dual-function knob is the only front-panel control on the msi-320. The outer knob selects the function in the window, while the inner knob chooses the parameters of the function.

We use the outer knob to choose the Channel Select display, for example, and the inner knob to set the actual channel. It's quick and easy.

Instead of a hard-to-read LCD, the msi-320 has a highly legible fluorescent display, so we can set it up and read it over a wide viewing angle. Individual selection options appear as full text menu items on



The Modulation Sciences msi-320 delivers a clean demodulated signal.

the display window.

Some of the parameters we can choose include sync tip or back porch clamping and zero carrier reference line. To make it even easier to use, the built-in status alarms are also full text.

The msi-320 is also extremely versatile. Although at the present time, we use ours only in the studio, it is fully RF shielded and rugged enough for use both in the studio and at the transmitter site.

The unit's selectable menu offers the precise measurements we might need to make, and its RS-232 serial interface capability provides convenient control and status monitoring from remote locations when necessary. It is one instrument I believe we can't do without. ■

Ed Huerta is supervisor of Broadcast Maintenance for the CBS Television Network in Los Angeles. He can be reached at 323-575-2345. The opinions expressed above are the author's alone.

For more information, contact Modulation Sciences (732-302-3090, www.modsci.com)

