

Case Study (Canada): Humber Valley United Church

Audio Plus Sound Solutions Inc Uses Xilica XD-4080 DSP for Church Installations

As with every live sound reinforcement design and installation, our goal over the past 16 years has been exclusively focused on speech intelligibility, acoustic gain, and music clarity - or better yet - audio transparency. With the introduction of the first & second generation digital EQ and digital speaker processors (DSPs), there was a new flexibility and fine acoustical adjustments possible that were previously unachievable with analog equipment. This has come with a price though, which is audio signal transparency.



Many digital processors seemed to dismantle the signal, altering its integrity and reassembling it without the tremendous smoothness we've enjoyed with professional analog equipment. This sacrifice has always been a disappointment, and like most of us who have identified digital's shortcomings, we've "lived with it".

With familiarity in both high quality and lower costing open and closed architecture DSPs, it was a welcome experience to listen to a processor without the normal "digital" artifacts that seems to plague most. The Xilica XD4080 was the first DSP I tested where I could honestly say it was very difficult to identify that it was Digital not analog, and what is equally impressive is the price.

A good case study is a project at Humber Valley United Church - a 600 seat facility in Toronto in which we completed the installation of a new sound reinforcement system utilizing the Xilica XD8080 loudspeaker processor. The church featured a well diffused room with short reverberation, requiring very little acoustic treatment - an excellent room where you can simply listen to sound while not being distracted by the typical acoustical anomalies.



Being familiar with the smooth Hi-Fi and detailed 'horn loaded' sound of the JBL PD series main loudspeaker, I was very impressed with the transparency of the Xilica processor in this installation. The normal digital 'high frequency noise' and other sonic anomalies associated with DSPs were surprisingly absent. The client's jaw dropping reaction after we played a simple 16bit 44.1 CD track (a poor audio source, I know) was enough to confirm our own conclusion.

With the Xilica XD processor the sound is impressive. The programming, although not the most user friendly, was achievable with a relatively short learning curve and with most options at hand. If you're looking for a very well priced, excellent sounding, closed architecture DSP I highly recommend the Xilica XD.



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