



DTC

IKIS™ Powered Digital Tools Card

Film ^{digital} *Tools*
card

 **Harrison**

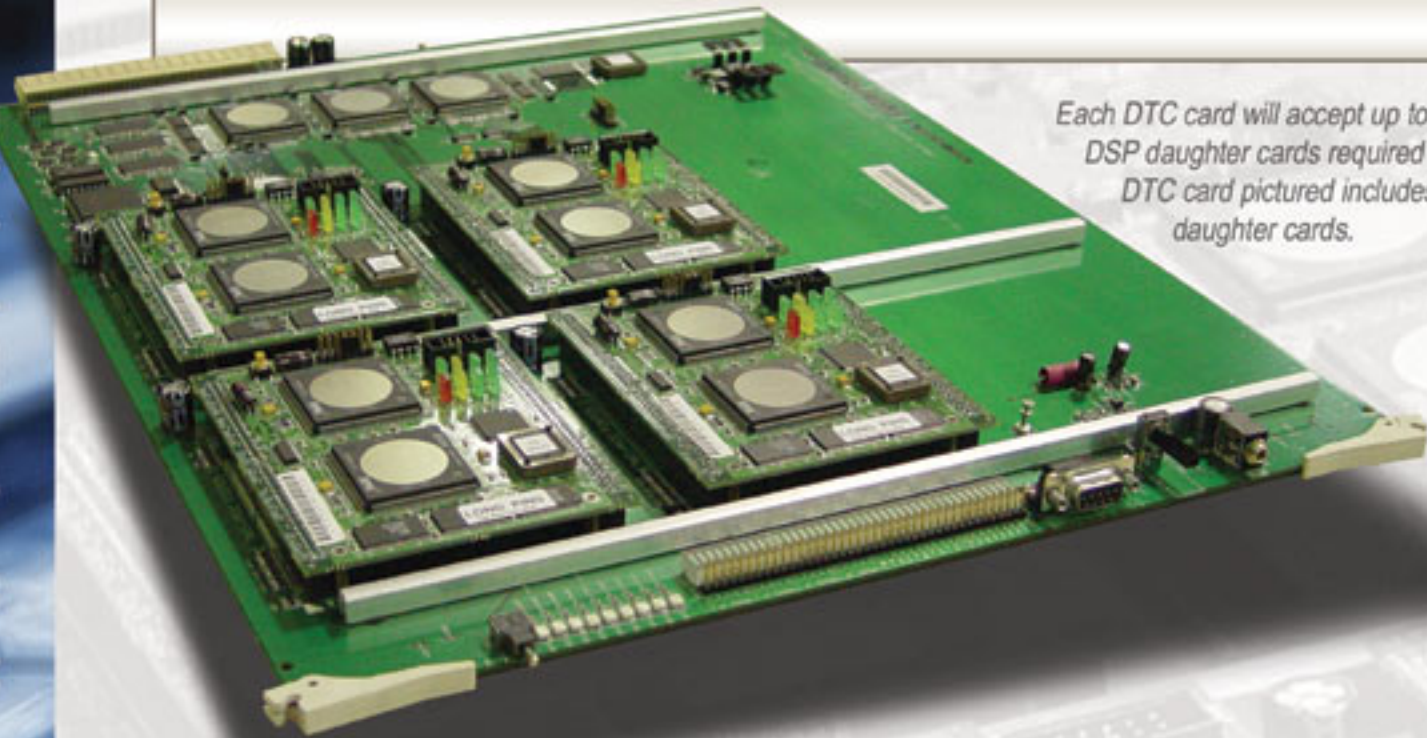
The Most Comprehensive Digital Tools Collection Available!



Film Tools digital card

STANDARD FEATURES:

- 32 Onboard Bus Limiters with "Anti-Breath" and "Look Ahead"
- Exclusive "Looping" Feature for Audio Sampling Up to 20 Seconds
- Simultaneous Execution of Up to 8 Optional Plug-Ins with Optional DSP Daughter Cards
- Multiple DTCs can be Installed Increasing Matrix Size for Future Addition of Plug-Ins
- Offered as an Option to the IKIS™ Automation System or Stand Alone Product
- Compatible with Harrison's IKIS™ Based Consoles
- Exploits the High Precision 40-Bit Architecture of the Harrison digital.engine™



Each DTC card will accept up to four (4) optional DSP daughter cards required for plug-ins. The DTC card pictured includes four optional DSP daughter cards.

Harrison's Digital Tools Card is a dedicated processor that exploits Harrison's exclusive 40-bit native architecture to provide unique features for IKIS™ based consoles. Unlike the vast variety of "black box" processors available today, the DTC™ provides performance results that can only be achieved by remaining at full 40-bit precision. The truncation and conversion typically required to export and re-import audio to all outside processors is eliminated. Now, massive headroom and high precision is available within each feature.

BUS LIMITERS

Each DTC™ card comes with thirty-two **look-ahead** bus limiters. The limiters can be arbitrarily linked to accommodate mono, stereo, or multi-channel signals. Each limiter has a set of "anti-breathe" controls which negate the "pumping" effect that results when a traditional limiter is used on difficult source material. These features combine to provide transparent multi-channel limiting of the console busses (or any other signal that you need to limit to a maximum level before the next stage of processing). An advantage to this bus limiter is transparent response with Ceiling, Release and Output Gain controls for undetectable processing. Input and Gain reduction meters are provided on all thirty-two bus limiters.

AUDIO LOOPING

Each DTC™ card provides an "audio looping" feature of twenty seconds for "in console" sampling. This exclusive Harrison feature allows any audio signal to be sampled and looped indefinitely while the user manipulates the signal. When used with companion IKIS™ software, the Audio Looper becomes a Super Looper. Press any PFL switch to route its source audio to the looper's input and start recording. Pressing the AFL on the same channel ends the recording process and substitutes the looper's output as the signal source. Now you have a source signal even after your talent goes for coffee.

FUTURE PLUG-IN OPTIONS:

- Crossover/Speaker Driver Tool with:
 - High Performance 4th Order 24 dB/Octave, In-Phase, Linkwitz-Riley 1/2/3 Way Speaker Crossovers.
 - Speaker Time Alignment
 - Look Ahead Voltage Limiting
 - RMS Speaker Protection and Metering
- Effects Pitch Shifter
 - Pitch Synchronous Splicing; OR Short Term Fourier Transform Based
- Trainable De-Noiser
- Precision Dynamic EQ Tool (4-Band Dynamic EQ with 4/2 EQs per Band)
- Trainable DeNoiser
- Advanced Dialog Processing
- Precision Dynamic EQ Tool (4-Band Dynamic EQ with 4/2 EQs per Band)



Audio Looper Display



Bus Limiters Display

OPTIONAL PLUG-INS

Up to four (4) DSP daughter cards may be added to a single DTC card. Daughter DSP cards are required for plug-in operation. The DTC™ card, DSP daughter cards and complementary plug-ins form an on-demand matrix of hardware and software based tools, each using dedicated DSP for optimum power and flexibility. The DTC™ package consists of a dedicated processing module added to an IKIS™ based digital.engine™ DSP core or as a stand alone system. Currently up to eight plug-ins can run simultaneously in a single processing module in any order in the signal chain. Multiple processing modules can be added to the DSP core to accommodate more DTC™ plug-ins as they become available. Plug-ins are optional and may be purchased individually or in packages. Plug-ins are also available on a temporary basis through Harrison's plug-in rental program.



Zero-Phase Linear EQ

Zero-Phase Linear EQ provides sixty-four bands of equalization without the phase shift. The Linear EQ is specifically designed for removing trouble frequencies while allowing control of the remaining bands. Each of the sixty-four bands can be individually adjusted, or you can use the "stiffness" control to apply broader changes similar to adjusting the "Q" control of a traditional EQ band. Each band can be "locked" in place so that it will ignore the effects of the stiffness control. This allows you to notch out selected frequencies and then continue to apply broad EQ settings to the incoming signal.



Multi-Band Compressor

A multi-band dynamic EQ specifically designed to function as a multi-band compressor. The Multi-Band Compressor can be selected to be a two, three or four band device with full spectrum frequency control for each band. The controls also include separate meters threshold, ratio, attack and release controls per band. The frequency ranges and maximum gain reduction (depth) of each band can be manipulated directly on the graphical display. The display also serves as a meter showing the dynamic EQ curve that is being applied to the incoming signal.

All DTC™ plug-in tools include comprehensive monitoring and metering facilities allowing the user to make precise adjustments to the audio signal. All controls are fully automatable and recallable.

Each DTC™ plug-in has a built-in "library" to allow the user to name, store and recall setups. Each plug-in has a rich graphical interface providing visual feedback and intuitive control expected from Harrison.

The DTC™ card, DSP daughter cards and plug-ins are available as a stand alone system, an option to the IKIS™ Automation and digital.engine™ package ordered in conjunction with a Harrison IKIS™/digital.engine™ upgrade, or as an optional feature set of all IKIS™ based consoles.



Harmonic Notch Filter

The Harmonic Notch Filter is a highly specialized, multi-band dynamic dip filter designed to attenuate noise. The user is able to quickly and easily apply only as much harmonic filtering as needed for the application. Each of the eight harmonically related bands has an In/Out switch for signal comparison. Each harmonic band includes four internal bands providing a thirty-two band filter set. Minimum and maximum depth settings allow for more flexible signal targeting. Additional dynamics controls include variable threshold, attack, and release times. Full spectrum frequency and Q controls are also provided.



DeEsser

The DeEsser tool provides quick and easy de-essing. You can manipulate the sibilance frequency range as well as the maximum gain reduction directly on the graphical display. The display also serves as a meter showing the dynamic EQ curve that is being applied to the incoming signal.

Select the Right Tool for the Job!

The Most Comprehensive Digital Tools Collection Available!



Leveled EQ

The Leveled EQ is a dual four-band, gated EQ. The Leveled EQ is specifically designed to provide dynamic switching between two EQ settings on signals with a wide dynamic range where it is necessary to EQ the signal at low levels differently than the signal at high levels.

Variable settings for threshold, crossover rate and hysteresis control the transition between the EQ's creating a gentle crossfade. Each band of EQ in both banks has multiple shape selections - bell curve, graphic bell, notch, search, low shelf, high shelf, LP filter, and HP filter.



Subharmonic Synthesizer

The Subharmonic Synthesizer generates ultra-low frequency content based on the existing low-frequency content of the incoming signal. Individual level controls are provided for 2 subharmonic oscillators as well as an overall synth level and general "LF boost" control. There are also controls for the crossover frequency and whether the resulting output should be full-range or subharmonic content only.



Telephone Filter

The Telephone Filter allows the user to add color and texture to a signal to simulate sound through a telephone line. The filter provides a typical 300 to 3kHz "steep side" filter with additional controls such as:

- Crackle Generator
- Density
- Width and Half Width
- Even and Odd Distortion Controls
- Aliasing Level and Density
- AM Modulation
- Frequency Controls
- Hiss Level
- Threshold



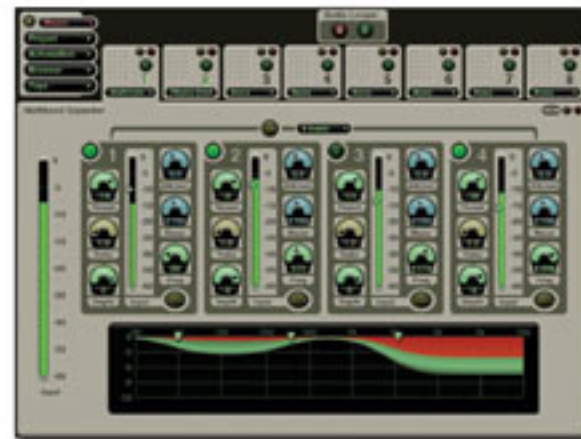
Crossover EQ

The Crossover EQ is a dual four band dynamic EQ. The Leveled EQ is specifically designed to provide dynamic switching between two EQ settings on signals with a wide dynamic range where it is necessary to EQ the signal at low levels differently than the signal at hi levels. Upper and Lower threshold settings determine the crossover range. Crossover time can be adjusted to create a smooth transition between the two EQ's. Odd and even distortion can be added to create a "warm" analog response or create a desired effect or texture. Each band in both EQ banks has multiple shape selections including bell curve, notch filter, search filter, hi shelf and low shelf.



Insert

The Insert tool provides a flexible "insert point" for an external device. The input to the device, output from the device, and the bypass path each have fourbands of parametric equalization and a comprehensive set of polarity, delay and trim controls which, when combined with a smooth cross-fade function, allow you to transparently insert and remove an external piece of gear from the signal chain.



Multi-Band Expander

A Multi-Band dynamic expander specifically designed to function as a multi-band expander. It is often used to remove hiss often found in the high end of a track. The Multi-Band Expander can be selected to be a two, three or four band device with full spectrum frequency control for each band. The controls also include separate threshold, ratio, depth, attack and release controls per band.

The frequency ranges and maximum gain reduction (depth) of each band can be manipulated directly on the graphical display. The display also serves as a meter showing the dynamic EQ curve that is being applied to the incoming signal.