

Virtual Tour



*The
Gold Standard
for
AM
Transmitters*



3DX DESTINY

The 3DX Destiny



The next generation AM transmitter built around the best modulation design in the world

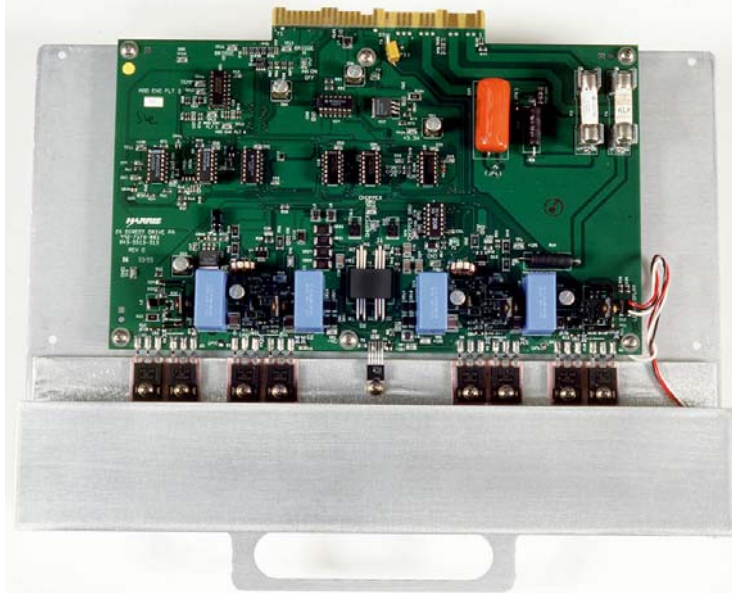
DX Digital Amplitude Modulation



3D RF Amplifier

Direct Digital Drive

Low Level Digital RF Drive



“Big Step” RF Amplifier

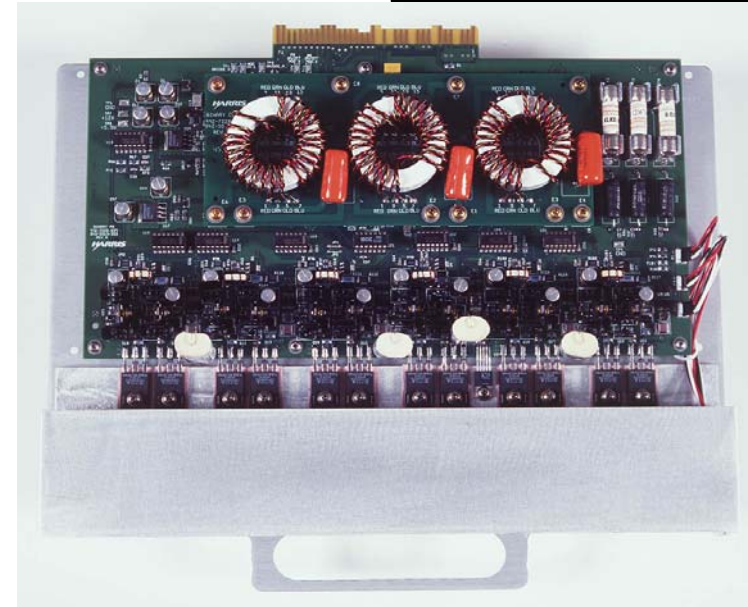
Improved Amplifier Power and Efficiency - 2kW per Amp @ 98% RF Efficiency and Overall Efficiency greater than 85%

Simplifies the Design by Eliminating RF Buffer, Pre-Driver, Driver, Splitters and Cables

62 “Big Step” RF Amplifiers Give More Accurate Modulation Control for Even Better IBOC & DRM Digital Transmission

With

Two - 3 Step Binary Amplifiers for 6 binary steps

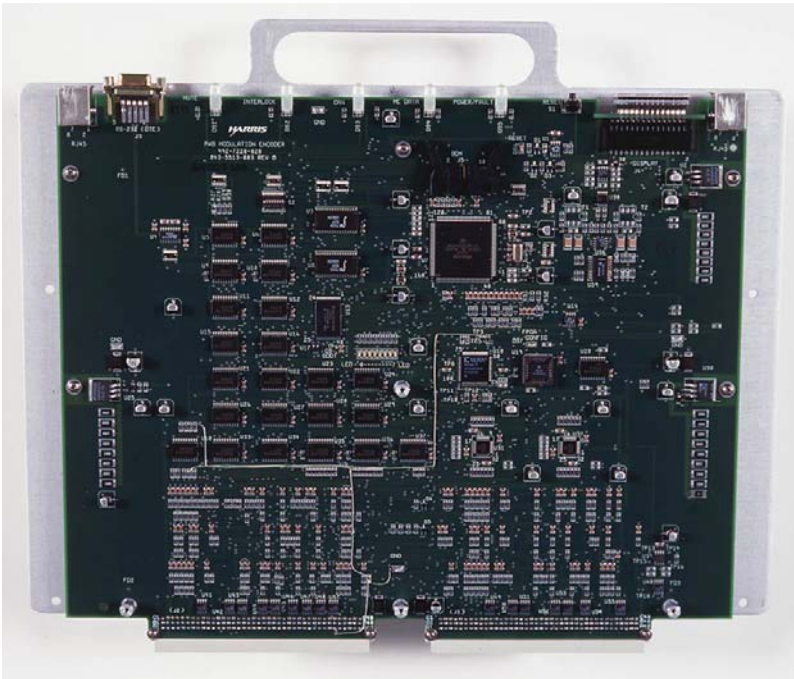


“Binary Step” RF Amplifier

Intelligent RF Amplifiers are self protecting for

- Over temperature
- Loss of RF drive
- Shorted RF output
- Loss of power supply fuses

Digital Serial Adaptive Modulation - DSAM



Serial Modulation Encoder

Distributes Modulation Control via serial feed to groups of 16 RF Amplifiers

Allows Dynamic “Adaptive” Modulation Flexibility for Changing Conditions

Modular design plugs together

Printed wiring boards and pluggable interconnect for reliability / simplicity



New Control Concept

Parallel / Serial Intelligent Control
for high reliability and system flexibility



INTELLISTAT™ Control Panel
a great user interface

Other Technical Improvements

3DX Output Network

- Minimum use of frequency determined components
- Fixed tuned 50 Ohm output
- Ease of Frequency Change

3DX Digital AM Exciter

- AES3 digital input
- On board frequency synthesizer w/ GPS lock input

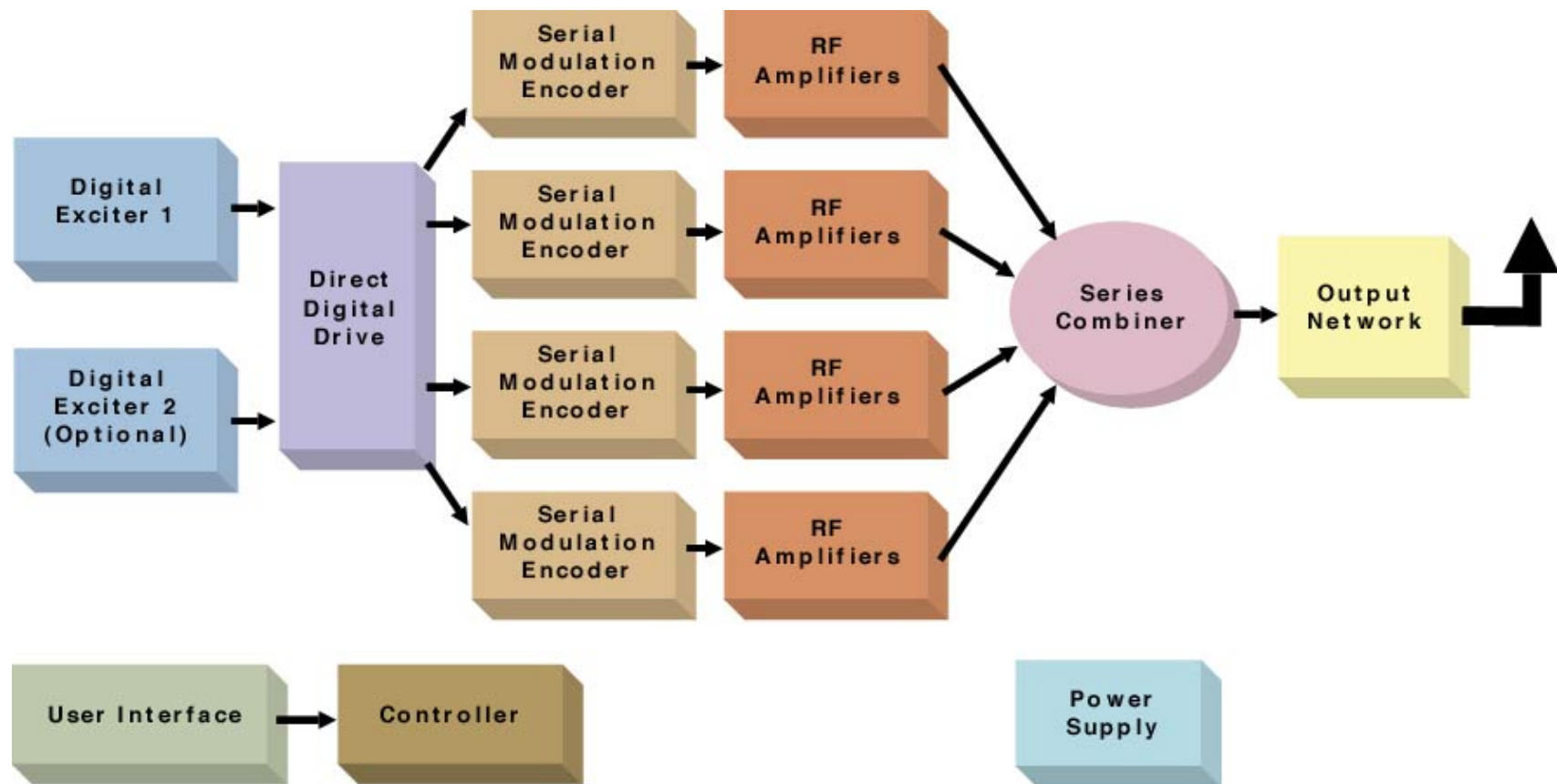
3DX Power Supply

- 12 pulse AC power supply for high power factor and low AC line harmonics
- Greater AC mains tolerance
 - +/-5% full performance
 - +10/-15% operational

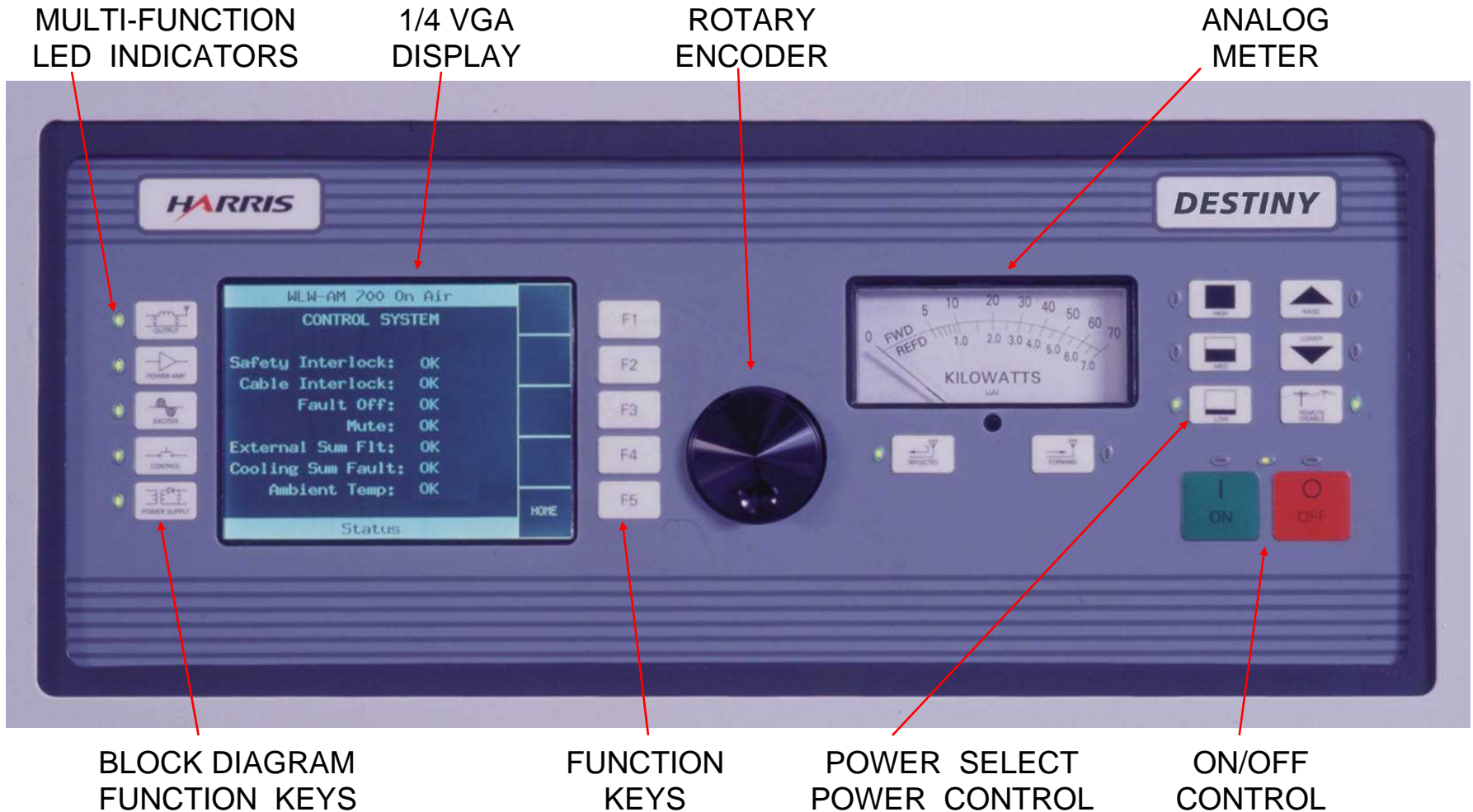
Next Generation DX Transmitter



A simpler, higher performance design



Intelligent user interface and control



Servicing ease -Hot Plugable RF Modules



“Big Step”
RF Amplifier

RF Module can be replaced while the transmitter is on the air



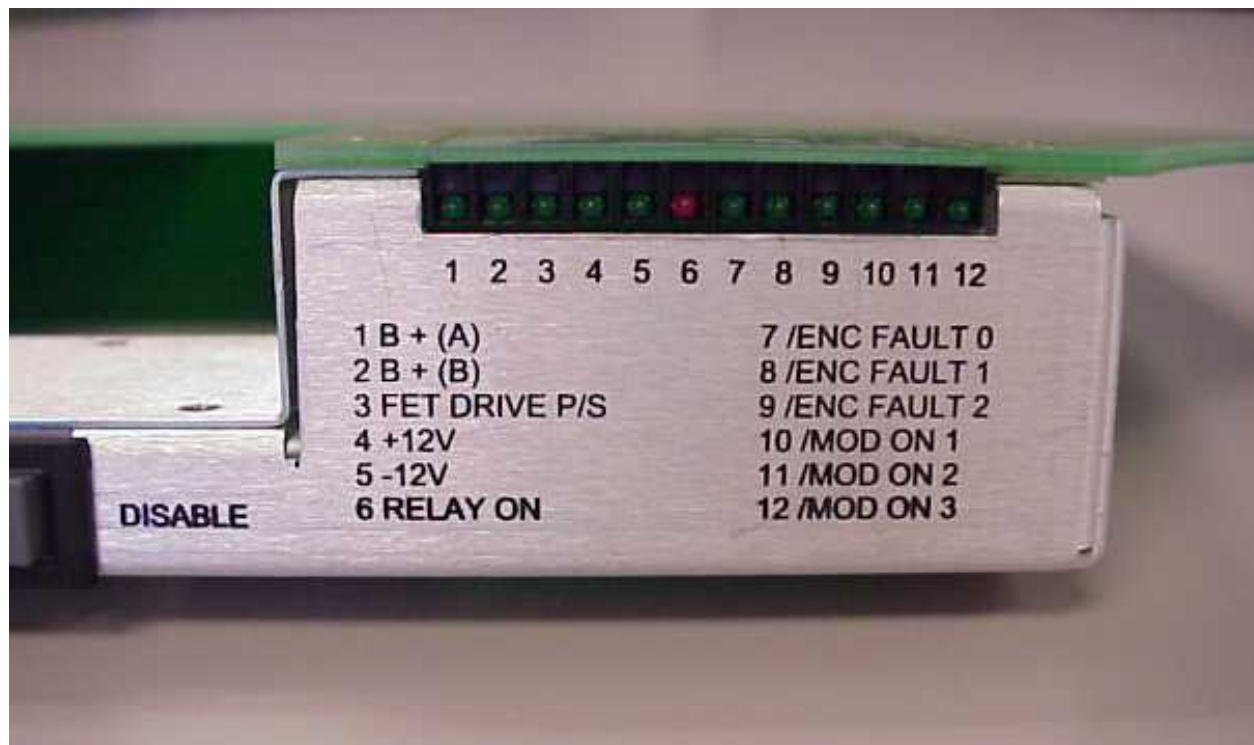
Uses a Module Access Key for safe module removal

Diagnostics
Key Module

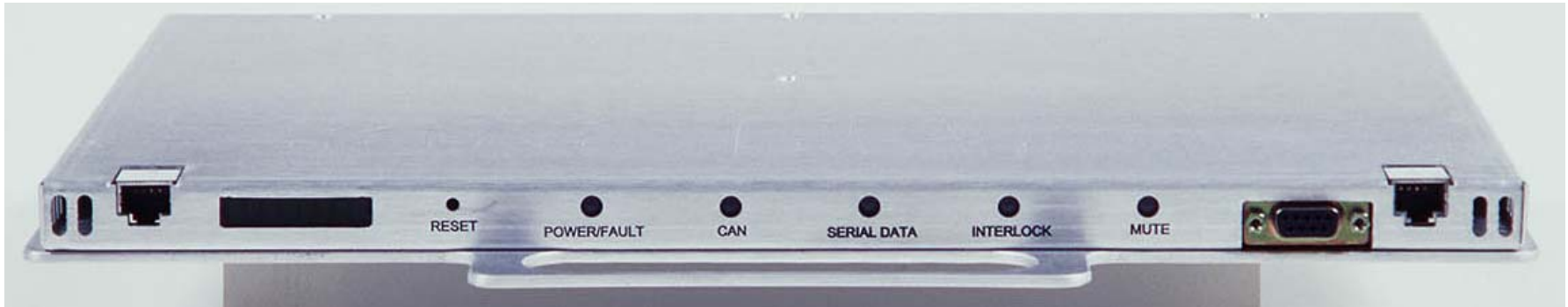
Diagnostic Key Module



- Check Module operational status **ON AIR**
- Remove Module for servicing **ON AIR**



Auto-Servicing



Digital Serial Adaptive Modulation - DSAM

Automatically replaces modules with problems

Maintains audio integrity under all conditions

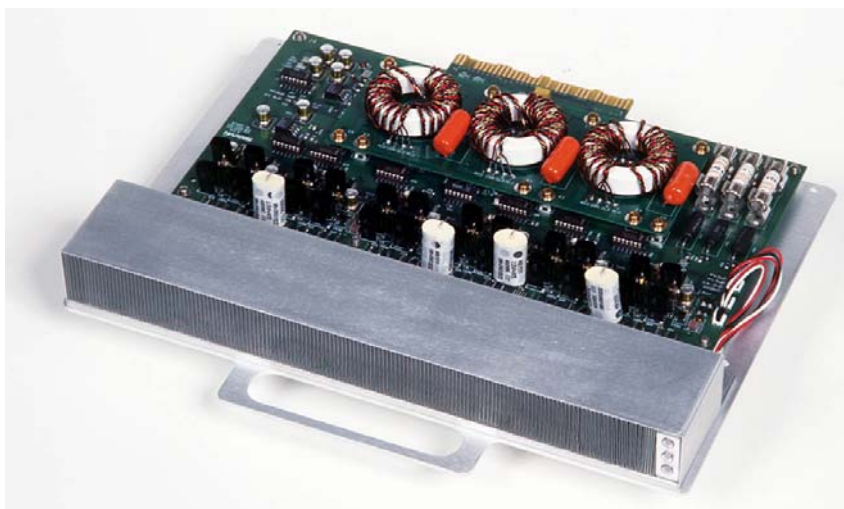
Up to 14 RF amplifiers can be out of service and the transmitter will still operate at full power & 100% modulation

With more than 14 RF amplifiers out of service, power and modulation are reduced to maintain optimum performance

Auto-Servicing

Hot Spares Module Option

Redundant modules may be installed as **Hot Spares** for automatic switchover if the main module has a problem



Hot Spares modules

- AM Exciter / Synthesizer
- Binary Amplifiers
- Binary Amp Power Supply
- Low Voltage Power Supply

The Next Generation AM Transmitter

3DX Technology - state of the art design

3DX Reliability - for user peace of mind

3DX Auto Servicing - for user flexibility

3DX-50/25

with

**Digital
Amplitude
Modulation**



*Thank you for taking the Virtual Tour
of the 3DX Destiny transmitter*

To speak with a Harris representative

800-622-0022 US

217-222-8200 Global