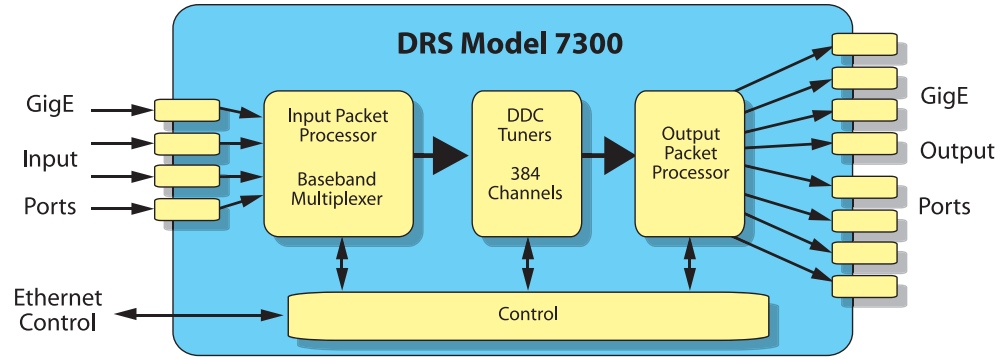




**DRS's Model 7300 is a new Gigabit Ethernet based digital tuner system. It supports single or multiple users, allowing access to hundreds or thousands (with multiple units) of digital sub-band channels. GigE Inputs and Outputs are compatible with COTS routers and switches.**

The four GigE inputs allow a fan-in of up to 16 total basebands. Each input port supports an aggregate data payload rate of 100 Mbytes/sec. A flexible crossbar architecture allows any input baseband to be routed to any of the 96 Graychip tuners. There are four channels per Graychip, for a total of 384 channels per system. Each of the 8 GigE output ports support up to 100 Mbytes/sec.



DRS INTELLIGENCE & AVIONIC SOLUTIONS, INC.



### Features

- Low Cost
- 2U Rack Mount Chassis
- Gigabit Ethernet I/O
- Input up to 16 independent basebands
- Route basebands to any of the 96 Tuner Chips
- 384 sub-band channels
- Independent Bandwidths for each Tuner Chip
- Independent center frequency FIR, and gain settings for each sub-band channel
- 8 GigE output ports, each port supports up to 100 Mbytes/sec
- Compatible with COTS routers and switches
- Outputs can be connected directly to Server NIC's
- Single and Multi-user software support
- Timecode Processing, independent for each sub-band channel

### Applications

- High Channel Count Signal Processing
- Communications
- Signal Intelligence

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### Physical

..... 2 U chassis  
 ..... Rack slides for 19 inch rack  
 ..... Front to back forced air cooling  
 Power ..... 100V-240V AC 50-60Hz  
 ..... ~3 Amp RMS

### Input

..... Rear mounted ports  
 ..... 4 user replaceable Gigabit Ethernet SFP modules (input links)  
 ..... • Default configuration is 1000Base-LX  
 ..... • Optional 1000Base-T  
 ..... Can sink data from up to 16 independent SDDS sources  
 ..... • Fully implemented IPv4, IGMPv2, UDP, and SDDS network layers  
 ..... • Distribution of the channels on the 4 input links is limited only by the 100e6 byte per second data transfer limit of SDDS  
 ..... • Maximum input sample rate is 100e6 samples per second  
 ..... Support of all standard SDDS data formats  
 ..... • Timecode based only on TOY field

### Processing

..... All DSP done using GC4016 ASICs with the resampler bypassed  
 ..... 384 narrow band tuners (NBTs) that can be configured, started and stopped with a high degree of independence  
 ..... • Settings include CIC decimation, tuning frequency (32 bit phase accumulator) and filter coefficients  
 ..... • NBTs are available in groups of four that can be independently assigned to process data from any of the 16 input SDDS channels  
 ..... Upsampling of input data by zero padding to 100e6 samples per second  
 ..... Generates complex data (16 bit I, 16 bit Q)  
 ..... Support input sample rates up to 100e6 samples per second  
 ..... Timecode information is maintained

### Output

..... Rear mounted ports  
 ..... 8 user replaceable Gigabit Ethernet SFP modules (output links)  
 ..... • Default configuration is 1000Base-T  
 ..... • Optional 1000Base-LX  
 ..... Each of the 8 output links can be have a different time-to-live IP setting  
 ..... Each of the 384 NBTs can be assigned a distinct Group IP and VLAN address  
 ..... Output is compatible with COT routers and NICs  
 ..... • Fully implemented IPv4, IGMPv2 and UDP

### Control / Status

..... Rear mounted port  
 ..... Command and control via 10/100 Ethernet (RJ45)  
 ..... DRS provided command, control, and status server  
 ..... DRS provided user interface  
 ..... Full X-Midas option tree and primitives  
 ..... Supports multi-user operation

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