

#### **Headend Systems**

#### Continuum DVP™ D9600 Advanced Headend Processor Re-multiplexer and Transport Stream Processor Series with optional built-in scrambler

#### Description

Today's digital systems demand powerful, flexible and compact solutions. The D9600 Re-multiplexer and Transport Stream Processor series, which are part of the Continuum DVP<sup>™</sup> D9600 Advanced Headend Processor family, address those requirements. It is the next generation of intelligent headend processing equipment where the combination of compactness and flexibility leads to a cost effective and state of the art solution. Years of experience have demonstrated that the device will work in most situations, even if the transport streams (TS) are not fully DVB or MPEG compliant. The optional built-in DVB scrambler allows easy integration with several leading Conditional Access (CA) systems.



The D9600 Re-multiplexer and Transport Stream Processor series have different models varying from a 1 RU unit with 4, 8 or 12 ASI inputs, to a 2 RU unit having 16 or 24 ASI inputs (all inputs can handle both MPTS and SPTS). If needed, a unique configurable interface allows the configuration of a main – backup input section. The unit has two identical ASI outputs making it possible to source signals to different devices (such as router, QAM modulator etc.).

Re-multiplexing is only a first step. Transport Stream processing is the second. The D9600 Re-Multiplexer and Transport Stream Processor series have very powerful TS processing capabilities including full PID filtering and re-mapping, MHP support and many more. Every version is supplied standard with basic monitoring including many TR 101 290 errors, bit rate measurement and viewing the incoming and outgoing PSI/SI. This allows an operator to address inquiries related to the Transport Stream. The extended PSI/SI capabilities allow it to address many unique situations and challenges. All PSI and SI tables can be regenerated and played out, changing dynamically according to input changes and configurations. Together with the SI-Server certain customized and even non-compliant situations may be addressed.

The D9600 Re-multiplexer and Transport Stream Processor series have a Graphical User Interface based on Java technology. This creates a user-friendly environment and limits the learning curve and training costs. Additionally, the units fit into Scientific-Atlanta's total management solutions, the ROSA<sup>™</sup> Network Management System. This creates a high integration of the D9600 Re-multiplexer and Transport Stream Processor into the complete digital solution.



Manage your network with ROSA and TNCS open standards element management. Get faster mean-time-to-repair, increased uptime, and management that evolves as you provision your networks. US toll-free 1-800-722-2009. EMEA +32 56 445 445. www.scientificatlanta.com/ROSA

#### Continuum DVP D9600 Advanced Headend Processor Re-multiplexer and Transport Stream Processor Series with optional built-in scrambler



## Features

- Re-multiplexing
  - Up to 24 ASI inputs and dual ASI output interfaces
  - Possibility to configure a main backup relationship on the inputs
  - Configurable ASI input Loop through
  - Each input supports MPTS SPTS or a PID stream
  - High output payload up to 200 Mbps
- Advanced Processing
  - o PID filtering / re-mapping on each input
  - Blocking of services/components
- Basic Monitoring
  - Error Monitoring on each input (includes most TR 101 290 errors)
  - Detailed bit rate measurement of incoming services (programs)
  - o Built-in PSI/SI viewer
  - Extended PSI-SI capabilities
    - Dynamic PSI/SI re-generation
    - PSI/SI play-out carousel
    - Import of all PSI/SI tables
- Optional built-in DVB Scrambler
  - DVB Simulcrypt V3 interface
  - Supports several leading CA Systems
- Front panel for direct alarm status information
- Ethernet interface for communication with management system, web browser and SI-server
- Easy control using web browser



# Specifications

| Environmental Specifications |                                  |  |
|------------------------------|----------------------------------|--|
| Ambient Temperature Range    |                                  |  |
| Within specs                 | +10°C to +40°C / +50°F to +104°F |  |
| Operating temperature        | 0°C to +50°C / +32°F to +122°F   |  |
| Storage temperature          | -20°C to +70°C / -4°F to +158°F  |  |
| Power Consumption            |                                  |  |
| Model D9604, D9608 and D9612 | < 35 W                           |  |
| Model D9616 and D9624        | < 50 W                           |  |
|                              |                                  |  |

| Mechanical Specifications    |                           |
|------------------------------|---------------------------|
| Model D9604, D9608 and D9612 | 1 RU                      |
| Height                       | 44 mm / 1.74 in.          |
| Width                        | 482 mm / 19 in.           |
| Depth                        | 470 mm / 18.5 in.         |
| Weight (D9612)               | Approx. 7.0 kg / 15.4 lbs |
| Model D9616 and D9624        | 2 RU                      |
| Height                       | 88 mm / 3.48 in.          |
| Width                        | 482 mm / 19 in.           |
| Depth                        | 470 mm / 18.5 in.         |
| Weight (D9624)               | Approx. 9.5 kg / 21.0 lbs |

| ASI Input Interface |  |
|---------------------|--|
| Number of inputs    | 4, 8, 12, 16 or 24   |
| Connector           | BNC-type   |
| Input Impedance     | 75 Ω   |
| Interface type      | Asynchronous Serial Interface (ASI)(according to EN 50083-9) |
| Packet format       | Auto detection: 188 / 204 byte packets                       |
| Bit rate            | 1 to 214 Mbit/s (minimum 1 Mbit/s payload)                   |
| Syntax              | SPTS or MPTS (according to ISO/IEC 13818)                    |

| ASI Output Interface |  |
|----------------------|--|
| Number of outputs    | 2  |
| Connector            | BNC-type   |
| Output Impedance     | 75 Ω   |
| Interface type       | Asynchronous Serial Interface (ASI)(according to EN 50083-9) |
| Bit rate             | 1 to 200 Mbit/s  |
| Syntax               | SPTS or MPTS (according to ISO/IEC 13818)                    |

| Ethernet (management) |                  |
|-----------------------|------------------|
| Number of connectors  | 2                |
| Connector type        | RJ-45            |
| Interface type        | 1 x 10Base-T     |
|                       | 1 x 10/100Base-T |
| Protocols             | HTTP, SNMP, IIOP |
| User interface        | Java             |



### **Specifications - continued**

| Conditional Access (optional) |   |
|-------------------------------|---|
| Scrambling Algorithm          | DVB Common Scrambling Algorithm   |
| Level and mode of scrambling  | Service/Program level scrambling support, Component level<br>scrambling support   |
| Number of connectors          | 1   |
| Connector type                | RJ-45   |
| Interface type                | Ethernet 10/100Base-T, ASI  |
| Simulcrypt                    | Simulcrypt version 3  |
| CAS                           | Conax <sup>™</sup> , Philips <sup>™</sup> , Beijing Compunicate Technology <sup>™</sup> , Irdeto <sup>™</sup> ,<br>Nagra <sup>™</sup> , Tsinghua Tongfang <sup>™</sup> , France Telecom <sup>™</sup> , NDS <sup>™</sup> , and<br>others |

| Transport Stream Processing                        |
|--|
| PID filtering / re-mapping capability              |
| Dynamic PSI/SI regeneration                        |
| Built-in PSI/SI viewer                             |
| Detailed bit rate measurement of incoming services |
| Error monitoring                                   |

## **Ordering Information**

| Continuum DVP D9600 Advanced Headend Processor<br>Re-multiplexer and Transport Stream Processor Series | Part Number |
|--|-------------|
| Model D9604 Continuum DVP Re-multiplexer and TS Processor (4 ASI inputs)                               | 4006237     |
| Model D9608 Continuum DVP Re-multiplexer and TS Processor (8 ASI inputs)                               | 4007873     |
| Model D9612 Continuum DVP Re-multiplexer and TS Processor (12 ASI inputs)                              | 4006238     |
| Model D9616 Continuum DVP Re-multiplexer and TS Processor (16 ASI inputs)                              | 4007874     |
| Model D9624 Continuum DVP Re-multiplexer and TS Processor (24 ASI inputs)                              | 4006239     |

| Continuum DVP D9600 Advanced Headend Processor<br>Re-multiplexer and Transport Stream Processor Series with built-in scrambler | Part Number |
|--|-------------|
| Model D9604 Continuum DVP Re-multiplexer and TS Processor (4 ASI inputs) with built-in scrambler                               | 4008731     |
| Model D9608 Continuum DVP Re-multiplexer and TS Processor (8 ASI inputs) with built-in scrambler                               | 4008732     |
| Model D9612 Continuum DVP Re-multiplexer and TS Processor (12 ASI inputs) with built-in scrambler                              | 4008733     |
| Model D9616 Continuum DVP Re-multiplexer and TS Processor (16 ASI inputs) with built-in scrambler                              | 4008734     |
| Model D9620 Continuum DVP Re-multiplexer and TS Processor (20 ASI inputs) with built-in scrambler                              | 4008746     |
| Model D9624 Continuum DVP Re-multiplexer and TS Processor (24 ASI inputs) with built-in scrambler                              | 4008735     |



Scientific Atlanta and Continuum are registered trademarks of Scientific-Atlanta, Inc. Continuum DVP is a trademark of Scientific-Atlanta, Inc. ROSA is a trademark of Scientific-Atlanta Europe NV. Specifications and product availability are subject to change without notice. © 2006 Scientific-Atlanta, Inc. All rights reserved.

Americas 1-800-722-2009 or 770-236-6900 www.scientificatlanta.com

Europe & Asia +32 56 445 445 www.saeurope.com

Part Number 7005286 Rev D March 2006