



## Digital Sound Broadcast Data Inserter DSIP020

### Generation of DAB STI or ETI signals containing Internet data

- ◆ Generates complete STI or ETI signals
- ◆ STI functionality
- ◆ ETI output (option)
- ◆ Usable as ETI signal generator (option)
- ◆ Input interface: Ethernet, 10/100 BaseT
- ◆ IP addressable
- ◆ IP packet insertion compliant with ETSI ES 201 735 and TS 101 759
- ◆ Data type: packet mode data
- ◆ Can be used for mobile Internet services via DAB transmission systems
- ◆ Variable data rate, configurable throughout the entire DAB bandwidth



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## Features

The Digital Sound Broadcast Data Inserter DSIP020 generates an STI data signal. This signal is based on the new STI (service transport interface) standard EN 300 797.

This standard defines the interface between the service provider and the ensemble multiplexer used in digital audio broadcasting systems (DAB).

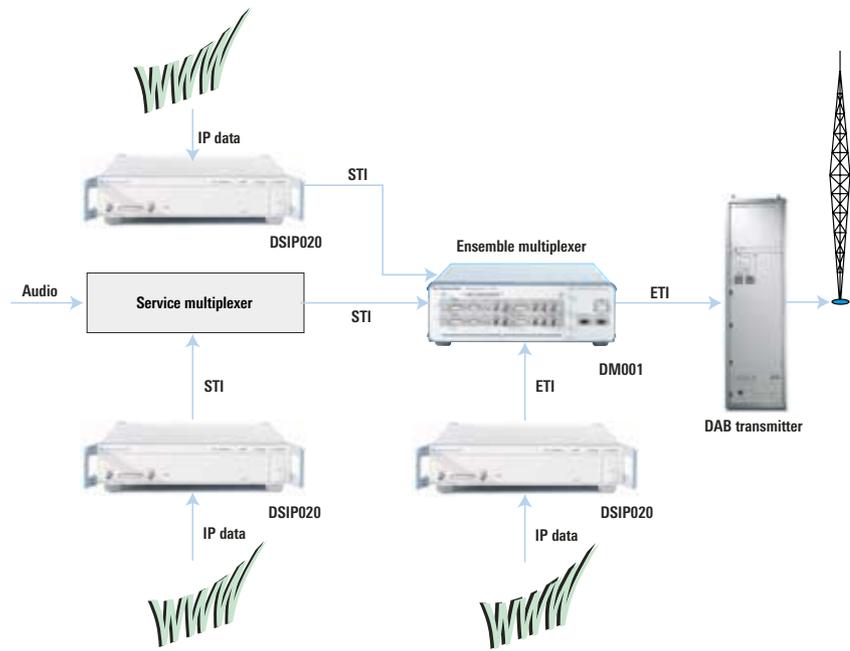
STI supports flexible management of bandwidth and services. The DSIP receives the data as IP frames via the LAN interface. A 10/100 BaseT card allows connection to the Intranet or Internet.

The internal processing power allows the data and IP streams to be processed. Additional applications such as WebCarousel or StreamConnector can be executed directly on the DSIP.

The IP data transmission is compliant with the standards ETSI ES 201 735 and ETSI TS 101 759. The packet mode data carries the IP content.

### STI-based services

The service transport interface (STI) allows flexible management of services. Services use subchannels. A maximum bandwidth is provided and configured for each subchannel. The owner and service provider can make use of the full bandwidth via the STI interface. Depending on requirements, the bandwidth can be modified within the assigned range. The granularity is 8 Kbps.



### IP connections

The DSIP supports transmission of any type of data as IP frames. This means that the content used on the Internet can be sent to the end users via DAB wireless links.

Examples of transmittable content include:

- ◆ Web sites and pages
- ◆ E-mail
- ◆ Files (similar to file transfer protocol)
- ◆ Streaming media (MP3, MPEG-1, -2 and -4 movies), live Internet TV and sound

IP connections (based on IP addresses) can be transmitted flexibly in one subchannel or in separately assigned subchannels.

Unidirectional applications such as push services are supported.

Bidirectional applications or interactive services are possible due to the integration of return channels in a complete system.

### Data reception

Reception in DAB receivers includes the capability to extract data transmitted as packet mode data.

Commercially available receivers or PC-based DAB cards can be used. Such a receiver card functions like a network card in a PC. The data received is forwarded to the PC-internal IP protocol stack. Therefore all Internet applications and tools can be used without being changed or adapted. The transmission bandwidth of the DAB subchannels is signalled correctly. It is possible to make use of the full bandwidth of a DAB signal.

### Mobile applications

Due to the features of DAB, mobile applications and reception in moving vehicles are possible.

The coverage of DAB transmission networks provides the basis for establishing local and regional services.

## Additional applications

The new media router solution will support the following additional applications and features:

- ◆ Broadcast IP router with support of quality of service (QoS)
- ◆ Integration of IP multicast services
- ◆ Separation of IP subnetworks (similar to class C networks) using dedicated DAB subchannels

## User interface

Windows NT 4.0 is used as the operating system. Configuration and administration are carried out using one graphical user interface.

## Supplementary software

The following software applications also used in digital TV based scenarios (Web over DTV) can be combined with the DSIP:

- ◆ WebCarousel  
sends files and Web content in a cyclic manner
- ◆ StreamConnector  
establishes connections to streaming media servers (live streams)
- ◆ Web Proxy  
is used on the receiver in conjunction with the assembler to rebuild files sent by WebCarousel (free of charge or together with receivers)

## Specifications

Output signals	
STI generic transport frame	STI stream according to ETSI EN 300 797
Interface without error protection	STI (PI, G.704/2) BNC connector (front panel) 75 $\Omega$ , G.703, 2 Mbit/s
ETI optional according to	ETSI EN 300 799
Input signals	
Interface on integrated PC	10/100 BaseT (100 Mbit/s)
Ethernet interface connector	RJ45
Operating system	Windows NT 4.0
Hard disk	min. 18 Gbyte

### General data

Environmental class	3.1 (ETS 300 019-1-3)
Rated temperature range	+5°C to +40°C (specs guaranteed)
Operating temperature range	0°C to +50°C

Storage temperature range	-40°C to +70°C
Climatic resistance	max. rel. humidity: 95% at 25°C
Electromagnetic compatibility	meets EN 55022 class B, EN 55024, EN 6100-3-2
Power supply	85 V to 265 V, 47 Hz to 63 Hz
Power consumption	100 VA
Electrical safety	meets EN 60950
Dimensions (W x H x D)	465 mm x 90 mm x 500 mm (19" cabinet, 2 RU)
Weight	approx. 6 kg

## Ordering information

DSIP020 basic unit		3542.0002.02
Options		
STI IP Generator, STI Out	DSIP-S	3542.0254.00
ETI IP Generator, ETI Out	DSIP-E	3542.0260.00
ETI Player, ETI Out	DSIP-P	3542.0277.00



**ROHDE & SCHWARZ**

ROHDE & SCHWARZ FTK GmbH · Wendenschloßstr. 168 · 12557 Berlin · Germany · Telephone +4930 65891-1030  
Internet: [www.rohde-schwarz.com](http://www.rohde-schwarz.com) · Fax +4930 65550221, E-mail: [Hotline.FTK@rohde-schwarz.com](mailto:Hotline.FTK@rohde-schwarz.com)