

Frequency Combiner Unit 0

20-0040-01

Manual



Introduction

The Frequency Combiner Unit 0 is used to connect RF generators or RF measuring devices to various antennas. There are three different variants of antenna combiners, which are described later in the manual.

Index of changes

version	date	edited	amendment
1.0	21.06.2011	H. Elten	first edition

Abbreviations

abbreviation	description
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Manufacturer

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1 Safety Instructions

1.1 Upon delivery

- Check the packaging and appliance immediately for transport damage.
- Do not use a damaged appliance, contact the supplier.
- Dispose of the packaging material properly.

1.2 During commissioning and decommissioning

- Carry out the installation in accordance with the installation and assembly instructions.
- The appliance and the system must be disconnected from the mains during installation.
- Ensure that the protective earth conductor of the domestic electrical installation is correctly installed.
- When installing in a rack system, the device must be properly secured.
- Ensure that any ventilation openings are not covered.

1.3 Use

- Only operate the device within the ambient and operating conditions specified under technical data.

1.4 Care

- Disconnect the appliance and system from the mains supply while you are servicing or cleaning the appliance.
- Only use the care and cleaning products specified in the care instructions.

1.5 Disposal

- Entfernen Sie das Netzkabel, um spätere Unfälle damit zu vermeiden
- Führen Sie das Gerät einer ordnungsgemäßen Entsorgung zu.

1.6 In case of damage

- Repairs and interventions may only be carried out by trained specialist personnel and the appliance must be disconnected from the mains.

2 Overview

2.1 Total view



Figure 1: Frequency Combiner Unit 0, front view



Figure 2: Frequency Combiner Unit 0, back view

2.2 Scope of delivery

The scope of delivery of the Frequency Combiner Unit 0 20-0040-01 device includes:

- Frequency Combiner Unit 0 20-0041-01

2.3 Functionality

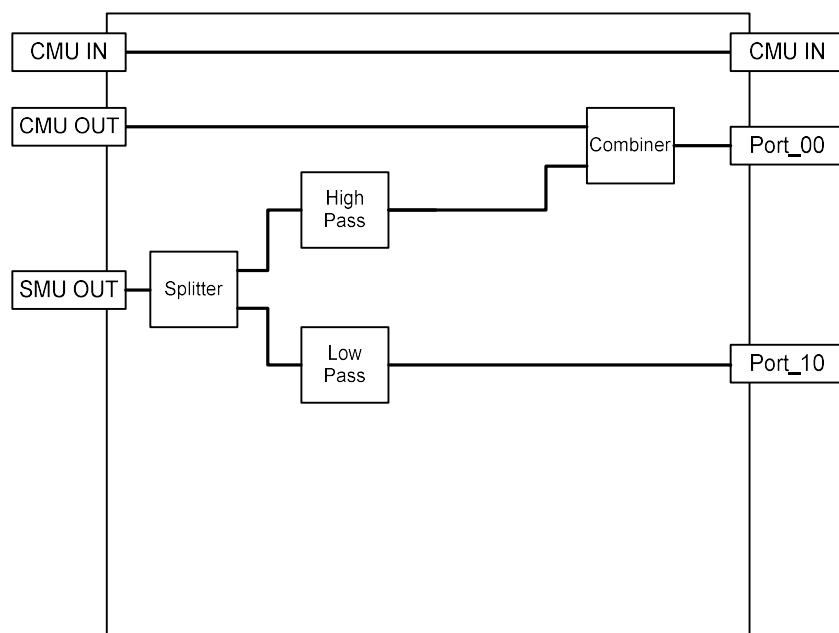


Figure 3: Block diagram Frequency Combiner Unit 0 20-0040-01

The Frequency Combiner Unit 0 connects the Rohde und Schwarz SMU200 or SMBV100 and CMU200 devices with a GSM rear antenna, one or two hyperlog antennas and one or two AM/FM antennas.

The CMU_IN input on the front is connected directly to the CMU_IN input on the rear. The CMU_OUT input on the front panel is connected to the Port_00 output on the rear panel via an RF combiner. The SMU_OUT input on the front is frequency-selectively connected to the PORT_00 (via an RF combiner) or Port_10 outputs via an RF splitter.

2.4 Interfaces

The interfaces are only partially equipped. The configuration can be found in the block diagram (block diagram of the Frequency Combiner Unit 0 20-0040-01).



Figure 4: Interfaces on the front of the Frequency Combiner Unit 0 20-0040-01



Figure 5: Interfaces on the front of the Frequency Combiner Unit 0 20-0040-01

The connections for the generators and measuring devices are located on the front.

The connections for the various antennas are located on the rear.

2.5 Technical Data

Function	distribution of hf generators or hf measuring devices to different antennas
Power supply	Not necessary
Dimension, weight	19-inch insert with 1HU, depth 260 mm weight: 2 kg
Operating conditions	Temperature: +0°C to +50°C, Air humidity: 80% to 31°C, linearly decreasing to 50% at 40°C Air pressure: 1013..795hPa (0..2000m above zero) Protection class: IP20, indoor use only
Transport conditions	Temperature: -40°C to +70°C, Air humidity max. 95% non-condensing in original packaging
Storage conditions	Temperature: -40°C to +70°C, Air humidity max. 95% non-condensing in original packaging
CE-conformity	Directive 2006/95/EC (Low Voltage) Directive 2004/108/EC (EMC) Directive 2002/96/EC (RoHS)

3 Commissioning and decommissioning

3.1 Assembly

The device is delivered fully assembled.

3.2 Installation and commissioning

First mount the Frequency Combiner Unit 0 in the 19 inch rack using the enclosed mounting hardware. Then connect the output and input interfaces. Please ensure that the plug connections are firmly seated.

3.3 Modifications

A modification of the device is not intended.

3.4 Decommissioning, packaging, transportation, storage

When decommissioning, always disconnect the system in which the device is installed from the mains first. Then disconnect the plug connections of the device. Then remove the device from the rack.

Use either the original packaging or, if the device is being replaced, the packaging of the replacement device for transportation or storage.

4 Usage

Regular use of the Frequency Combiner Unit 0 does not require any operation by the user.

5 Care

The device is maintenance-free and requires no special care. Please use a damp, non-dripping cloth to clean the front panel. Water, water with a drop of washing-up liquid, spirit or isopropanol can be used as cleaning agents.

6 Disposal

Please dispose of the old device in an environmentally friendly manner and recycle it.

Please also dispose of the packaging of the device in an environmentally friendly manner.

When replacing appliances, please use the packaging of the new device to return the old device.

7 Annex

7.1 Interface assignment

The interfaces are only partially equipped. The configuration can be found in the block diagram (block diagram of the Frequency Combiner Unit 0 20-0040-01).



Figure 6: Interfaces at the front of Frequency Combiner Unit 0 20-0040-01



Figure 7: Interfaces at the back of Frequency Combiner Unit 0 20-0040-01

CMU IN (at front panel)		
Pin	Name	Function
1	CMU IN	Inner conductor of CMU IN plug
Shield	CMU IN Shield	Shield of CMU IN plug
Built-in plug connection: Huber+Suhner 34_SMA-50-0-1/111_NE		

CMU OUT		
Pin	Name	Function
1	CMU OUT	Inner conductor of CMU OUT plug
Shield	CMU OUT Shield	Shield of CMU OUT plug
Built-in plug connection: Huber+Suhner 34_SMA-50-0-1/111_NE		

SMU OUT		
Pin	Name	Function
1	SMU OUT	Inner conductor of SMU OUT plug
Shield	SMU OUT Shield	Shield of SMU OUT plug
Built-in plug connection: Huber+Suhner 34_SMA-50-0-1/111_NE		

300-2500 MHz Port_00		
Pin	Name	Function
1	Port 00	Inner conductor of Port 00 plug
Shield	Port 00 Shield	Shield of Port 00 plug
Built-in plug connection: Huber+Suhner 37_N-SMA-50-1/1--_UE		

300-2500 MHz Port_01 → not equipped
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1-300 MHz Port_10		
Pin	Name	Function
1	Port 10	Inner conductor of Port 10 plug
Shield	Port 10 Shield	Shield of Port 10 plug
Built-in plug connection: Huber+Suhner 37_N-SMA-50-1/1--_UE		

1-300 MHz Port_11 → not equipped

CMU IN (back)		
Pin	Name	Function
1	CMU IN	Inner conductor of CMU IN plug
Shield	CMU IN Shield	Shield of CMU IN plug
Built-in plug connection: Huber+Suhner 37_N-SMA-50-1/1--_UE		
USB → not equipped		
Power in → not equipped		