

## Standard Coupling Unit SCF-0300 Standard Coupling Unit SCF-0301-LAN

MTS-No.: 17883  
MTS-No.: 18419

### Application

With the MTS Standard Coupling Unit you can emulate air interfaces for all imaginable scenarios. To avoid the influence from the live-net, the signals can be connected with cables directly from the different signal sources, as for example GSM or UMTS base stations or signal generators etc. over the MTS SCF to mobile devices.

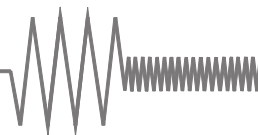
### Description

The MTS Standard Coupling Unit series SCF-0300/0301-LAN emulates an air interface between 6 base stations and 3 mobile devices.



### Characteristics

- ▶ 3 groups, each with 2 inputs coupled to 1 outputs through 93 dB attenuators
- ▶ Frequency range from 400 MHz to 2900 MHz
- ▶ Attenuation range from 0 dB to 93 dB in 1 dB steps at each attenuator
- ▶ LEDs at the front panel show the minimum suggested attenuation
- ▶ Integrated combiners (1 x 4/1, 2 x 2/1)
- ▶ Switching time up to 10 ms
- ▶ Integrated power supply 100 V - 240 V AC
- ▶ Manual control (LC display with keypad)
- ▶ Remote control by RS-232 and optional LAN (at model SCF-0301-LAN),
- ▶ 19" rack mount unit (84 TE) with 6 HU
- ▶ Windows control programs can be offered
- ▶ High quality materials and components for extended durability
- ▶ Coupling Units can be designed according to customers individual requirements



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### Configuration:

3 paths each with 2 variable attenuators connected by 2/1 combiner to 1 output,  
additional combiner 1 x 4/1 and 2 x 2/1

### Technical data:

#### 1 RF-specifications:

1.1 Impedance	50 Ω
1.2 Input power	+24 dBm max. (@ BTS path) +26 dBm max.
1.3 Frequency range	400 MHz - 2900 MHz
1.4 RF-connections	N female
1.5 VSWR In	2,1 : 1 max. (@ BTS path) 1,6 : 1 max. Cb path
1.6 VSWR Out	1,6 : 1 max. Cb path 500 MHz – 2900 MHz 2,0 : 1 max. BTS path 400 MHz – 2900 MHz 2,5 : 1 max. BTS path
1.7 Insertion loss	12,5 dB typ. 16 dB max. (path with adjustable attenuator, at 0 dB attenuation) 4 dB max. Cb IN to Cb OUT 2-way splitter 7,5 dB max. Cb IN to Cb OUT 4-way splitter
1.8 Attenuation	0 dB - 93 dB in 1 dB steps
1.9 Gradation	1 dB / 2 dB / 4 dB / 8 dB / 16 dB / 30 dB / 32 dB
1.10 Setting accuracy	1 dB ±0.4 dB 2 dB ±0.8 dB 3 dB - 9 dB ±1.0 dB 10 dB - 29 dB ±1.5 dB 30 dB - 79 dB ±3.0 dB 80 dB - 89 dB -3.0 dB / +6.0 dB 90 dB - 93 dB ±6.0 dB

#### 2 Connections:

2.1 Front side	Power switch with integrated control lamp LCD display Keyboard UP/Down key LEDs for power level indication RF-connections
2.2 Rear side	Power supply Control card Appliance plug with the integrate fuses F1 and F2 Ground connector Control interfaces RF-connections

#### 3 General specifications:

3.1 Power supply	100 V - 240 V 50 Hz / 60 Hz
3.2 Internal voltage	+5 V DC
3.3 Control displays	Control lamp in the power switch Green LCD Control LED for +5 V DC at the power supply unit
3.4 Control interfaces	RS-232 LAN (only at SCF-0301-LAN)
3.5 Power consumption primarily	0.6 A max. @ 230 V
3.6 Voltage supply	Standard rubber connector
3.7 Operating temperature	0 °C - +50 °C
3.8 Reference temperature for specifications	+25 °C
3.9 Dimensions	19" rack mount unit 84 TE x 6 HU x 310 mm (dimensions without handles and connections)
3.10 Colour	Front side colourless anodized Rear side colourless anodized
3.11 Weight	11 kg

#### 4 Delivered parts:

SCF-0300/301-LAN  
Power cable  
CD with operating manual

#### 5 Comments:

Warranty 12 months  
RoHS-compliant Yes

#### 6 Recommended accessories:

Shielding box of the series  
MSB-02xx or MSB-01xx  
RF-cables  
Control software

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Views: Model SCF-0300

