

# ESA1 set

## Emission Development System



### Short description

The ESA1 is a system of EMC tools for measuring the interference of assemblies and devices. The CS-ESA software allows the developer to quickly and comprehensively suppress interference affecting the DUT. Interference measurements taken during the development stage with ESA1 are proportional to the results from far-field measurements or from measurements with artificial networks. With the ESA1 tools disturbance sources can be localized, effects can be detected, and EMC measures individually determined. The effects of improvements implemented by ESA1 are proportional to the results from far-field measurements. ESA1 is designed for use at the developer's working place.

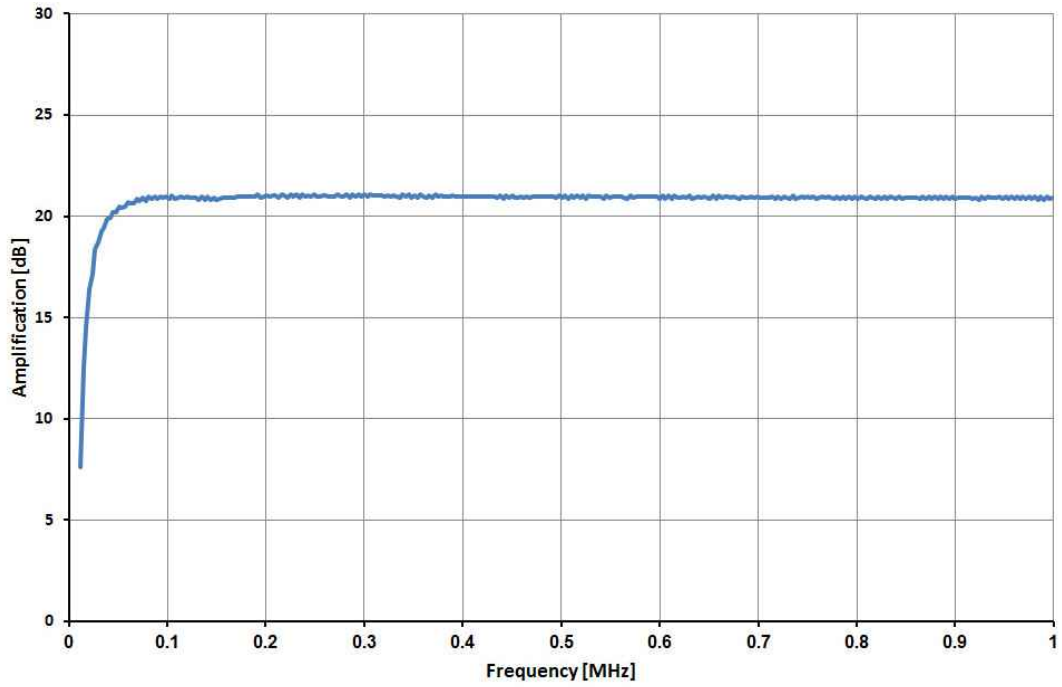
### Scope of delivery

- 1x CS-ESA set, ChipScan-ESA Software / USB
- 1x HFW 21, RF Current Transformer
- 1x Z23-1 set, Shielding Tent (900 x 500 x 400) mm
- 1x RF-B 0.3-3, H-Field Probe mini 30 MHz up to 3 GHz
- 1x RF-E 02, E-Field Probe 30 MHz up to 1.5 GHz
- 1x RF-E 10, E-Field Probe 30 MHz up to 3 GHz
- 1x RF-R 3-2, H-Field Probe 30 MHz up to 3 GHz
- 1x RF-R 400-1, H-Field Probe 30 MHz up to 3 GHz
- 1x RF-U 5-2, H-Field Probe 30 MHz up to 3 GHz
- 1x NT FRI EU, Power Supply Unit
- 1x ESA1 m, User Manual
- 1x Dongle, Licence Dongle
- 1x HFA 21, RF Bypass
- 1x PA 203 BNC, Preamplifier 100 kHz up to 3 GHz
- 1x RF-B 3-2, H-Field Probe 30 MHz up to 3 GHz
- 1x RF-E 05, E-Field Probe 30 MHz up to 3 GHz
- 1x RF-R 0.3-3, H-Field Probe mini 30 MHz up to 3 GHz
- 1x RF-R 50-1, H-Field Probe 30 MHz up to 3 GHz
- 1x RF-U 2.5-2, H-Field Probe 30 MHz up to 3 GHz
- 1x ESA1 acc, Accessories
- 1x ESA1 case, System case

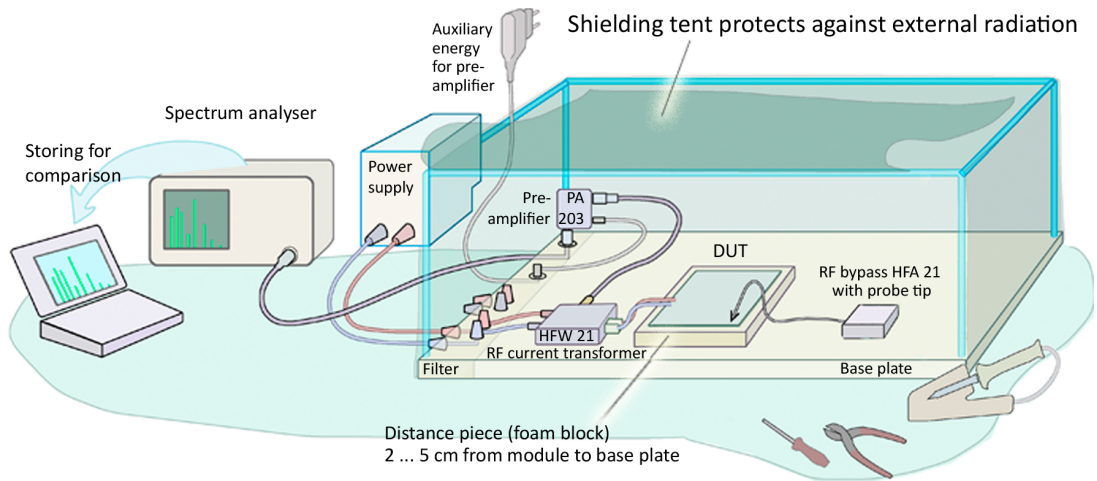
Technical parameters

<b>HFW 21 RF Current Transformer</b>	
Frequency range	100 kHz - 1 GHz
Continuous power rating	
Current	10 A
Dielectric strength	50 V
Sizes (L x W x H)	(135 x 32 x 28) mm
<b>HFA 21 RF Bypass</b>	
Capacitances	10 pF ... 100 nF
Dielectric strength	50 V
<b>Shielding tent (900x500x400) mm</b>	
Attenuated shielding	45 dB - 50 dB / 30 MHz - 1GHz
Sizes (L x W x H)	(900 x 500 x 400) mm
Weight	12 kg
<b>Near Field Probes</b>	
Frequency range	30 MHz - 3 GHz
<b>CS-ESA software</b>	
Operating system	Windows 11/10 64-bit (latest service packs)
<b>PA 203 preamplifier</b>	
Frequency range	100 kHz - 3 GHz
Amplification	20 dB
Supply voltage	12 V DC
Current input	50 mA
Max. input power	+13 dBm

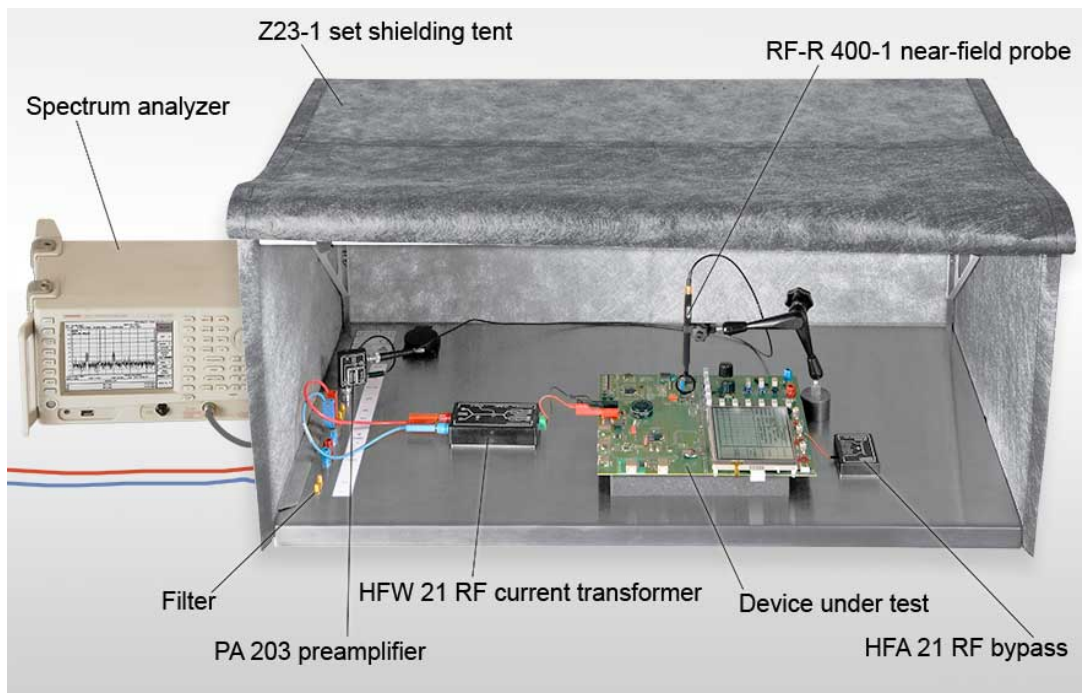
Frequency response (detail)



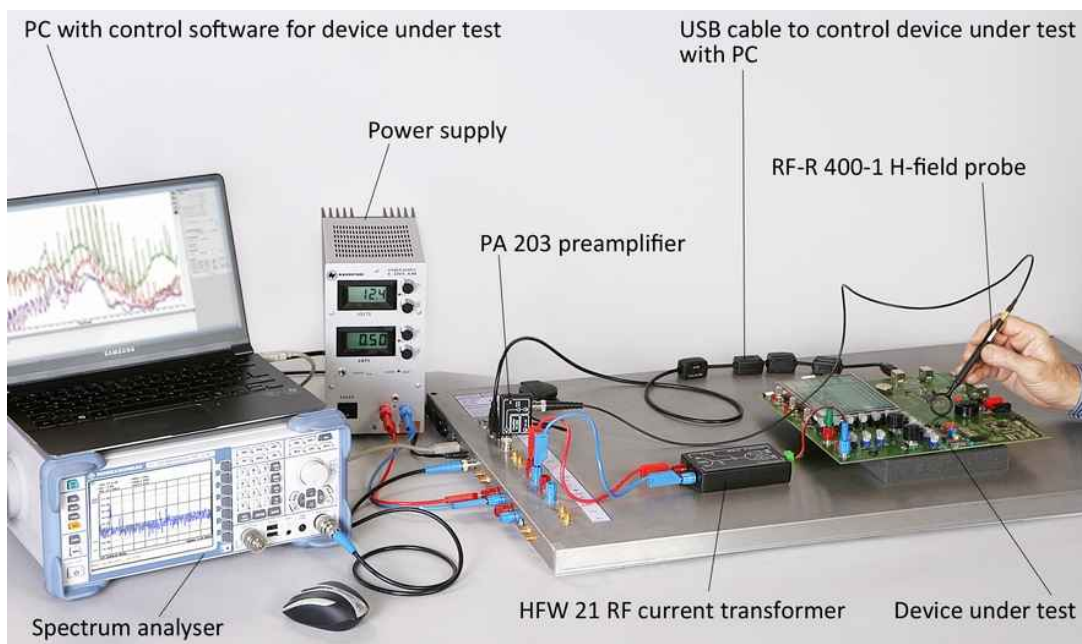
Scheme ESA1



Measurement set-up ESA1



Application with RF-R 400-1



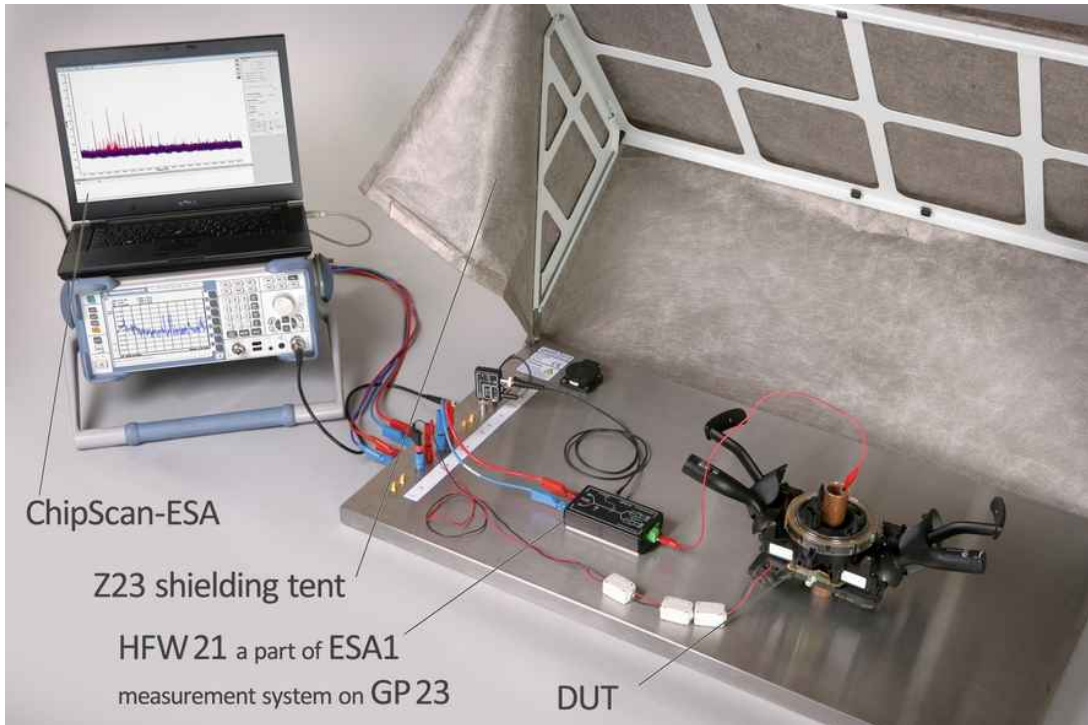
Scope of delivery ESA 1k



ESA1 probes



Application with HFW 21



ESA Shielding tent

