Preamplifier PA 203, PA 303 and PA 306

The preamplifier is used to amplify measurement signals such as weak signals of high-resolution near-field probes. The input and output of the preamplifiers are designed either as 50 Ω BNC or SMA connector. The PA 306 is also available with N connector.

PA 203
- best for LF, RF probes
- Amplification: 20 dB
- Frequency range: 300 kHz - 3 GHz

PA 303
- best for LF, RF probes
- Amplification: 30 dB
- Frequency range: 300 kHz - 5 GHz

PA 306
- Amplification: 50 dB
- Frequency range: 300 kHz - 5 GHz

Set LF 1
- LF-R 400-1 H-field
- LF-B 3-1 H-field
- LF U 3-1 H-field

Set RF 1
- RF-R 3-1 H-field
- RF-U 2-5-2 H-field
- RF-E 7-4 H-field
- RF-E 05 H-field

Set RF 3 mini
- RF-R 0.3-5 H-field
- RF-E 0.3-5 H-field

Set RF 5
- RF-R 400-1 H-field
- RF-B 3-1 H-field
- RF-E 25-1 H-field
- RF-E 05 H-field

Set XF 1
- XF-R 400-1 H-field
- XF-R 3-1 H-field
- XF-U 2-5-1 H-field
- XF-E 2-5-1 H-field

Set SK 1
- SX-B 3-1 H-field
- SX-B 3-1 H-field
- SX-E 02 H-field

MFA 01
MFA-K 0.3-1.2 H-field
MFA-K 0.3-1 H-field
MFA-K 0.2-6 all H-field (active)
MFA-K 0.2-7.5 all H-field (active)
MFA-K 0.3-30 all H-field (active)

MFA 02
MFA-K 0.3-7.5 all H-field (active)
MFA-K 0.3-10 all H-field (active)
MFA-K 0.2-30 all H-field (active)

All probes and amplifiers are designed and manufactured in Germany.

The probes are ideal for two basic tasks
- To measure fields that may excite emissions
- To locate the source of emissions on the module

Important findings to improve the module’s EMC in terms of its emissions.

Special field densification at components, traces or structural parts indicates emission sources. Selected EMC countermeasures can be derived from these important findings to improve the module’s EMC in terms of its emissions.

Note:
- The probes can be used
- To examine the nature, direction and size of near-field signals on electronic modules
- To identify structural parts or components as sources of interference
- To verify the measures taken to improve the EMC of an electronic module

Near-field probes
Near-field probes are guided over the module by hand. The developer can turn and rotate them to get an idea of the spatial distribution of the near-fields. Special field densification at components, traces or structural parts indicates emission sources. Selected EMC countermeasures can be derived from these important findings to improve the module’s EMC in terms of its emissions.

The probes are ideal for two basic tasks
- To measure fields that may excite emissions
- To locate the source of emissions on the module

Overview

MFA 1 MHz - 6 GHz (active)
- The probes are ideal for the following tasks:
  1. To measure fields that may excite emissions
  2. To locate the source of emissions on the module

BF 706 H-field
- X-field
- LF-RF-XF probe sets
- Measurement cable
- Quick guide
- Case
- Bias Tee
- Power supply

MFA 01
MFA-K 0.3-1.2 H-field
MFA-K 0.3-1 H-field
MFA-K 0.2-6 all H-field (active)
MFA-K 0.2-7.5 all H-field (active)
MFA-K 0.3-30 all H-field (active)

MFA 02
MFA-K 0.3-7.5 all H-field (active)
MFA-K 0.3-10 all H-field (active)
MFA-K 0.3-10 all H-field (active)

Note:
- All probes and amplifiers are designed and manufactured in Germany.
LF 100 kHz - 50 MHz

Magnetic field measurement: LF-K 7
At lines, buses or lines structural parts, in cables and components, particularly small probe head for IC pins.

Magnetic field measurement: LF-U 4-2
Directly on modules, particularly small probe head for IC pins.

Magnetic field measurement: LF-U 5
In conductor runs, component connections, capacitors and ICs.

RF current measurement: LF-U 2.5
To conducting paths, cables and their components, particularly small probe head for IC pins.

RF current measurement: LF-R 3-2
To conduct paths, cables and their components, particularly small probe head for IC pins.

Magnetic field measurement: LF-R 5-30
At the edge and in the vicinity of modules and housings, up to 3 mm distance of IC pins, single IC pins at paths with a width of 0.5 cm, B 3-2, 3 mm distance of IC pins at multi-pin ICs.

Magnetic field measurement: LF-R 400
Up to a distance of 5 cm around assemblies and devices.

RF current measurement: RF-U 5-2
On modules, particularly small probe head for IC pins.

RF current measurement: RF-U 2.5-2
On modules, particularly small probe head for IC pins.

Magnetic field measurement: RF-U 10
Directly on modules, particularly small probe head for IC pins.

Magnetic field measurement: RF-U 2.5-3
On assemblies, particularly small probe head for IC pins.

Magnetic field measurement: RF-U 4-2
Directly on modules, particularly small probe head for IC pins.

Magnetic field measurement: RF-U 5
Directly on modules, particular small probe head for IC pins.

RF current measurement: RF-R 0.3-3
At modules, particularly on IC pins, SMD components and IC modules by rotating the probe.

RF current measurement: RF-R 3-1
At assembly, particularly on IC pins and IC modules, on cables and their components, particularly small probe head for IC pins.

RF current measurement: RF-R 400-1
At assembly, particularly on IC pins and IC modules, on cables and their components, particularly small probe head for IC pins.

Magnetic field measurement: RF-K 7-4
At the edge and in the vicinity of modules and housings, up to 3 mm distance of IC pins, single IC pins at paths with a width of 0.5 cm, B 3-2, 3 mm distance of IC pins at multi-pin ICs.

RF current measurement: RF-K 7-4
At the edge and in the vicinity of modules and housings, up to 3 mm distance of IC pins, single IC pins at paths with a width of 0.5 cm, B 3-2, 3 mm distance of IC pins at multi-pin ICs.

Magnetic field measurement: RF-R 3-1
At assembly, particularly on IC pins and IC modules, on cables and their components, particularly small probe head for IC pins.

Magnetic field measurement: RF-R 3-2
At assembly, particularly on IC pins and IC modules, on cables and their components, particularly small probe head for IC pins.

Magnetic field measurement: RF-R 400-1
At assembly, particularly on IC pins and IC modules, on cables and their components, particularly small probe head for IC pins.

Magnetic field measurement: RF-R 400-1
At assembly, particularly on IC pins and IC modules, on cables and their components, particularly small probe head for IC pins.

Magnetic field measurement: RF-R 400-1
At assembly, particularly on IC pins and IC modules, on cables and their components, particularly small probe head for IC pins.

Magnetic field measurement: RF-R 400-1
At assembly, particularly on IC pins and IC modules, on cables and their components, particularly small probe head for IC pins.