



HC 3 – 30 A

3 dB Coupler
0.01 ... 30 MHz
5 W max.





Performance Data

- Frequency Range 0.01 ... 30 MHz
- SWR
< 1.5 100 kHz ... 30 MHz
< 2.0 10 kHz ... 100 kHz
- Input / Output [1] 0 ... 5 W max.
- Inputs / Outputs [2/3] 2 x 0 ... 2.5 W
- Insertion Loss
≤ 0.5 dB 100 kHz ... 30 MHz
≤ 1 dB 10 kHz ... 100 kHz
- Isolation 15 ... 30 dB 10 kHz ... 30 MHz
- Dynamic IP₃ +60 dBm

Connector Types

- Input / Output [1] TNC / SMA[®]
- Outputs / Inputs [2/3] TNC / SMA[®]

[®] optional

Ambient Temperatures

- Operating -20 ... +60 °C / external SWR ≤ 3 / Outputs
- Storage -40 ... +80 °C



Functional Description

- Transformer 3 dB Coupler
- 4-Port Coupler with internal Refl. Port – Load Resistor 50 Ω

Scope of Applications

- Power Splitter 1:2 for Input Power of 0 ... 5 W
- Cascadable 1/n
- TX Signal Splitter / Driver Power for 2x Power Amplifier
- Overload protected RX Signal Splitter for 2x Receiver at 1x Antenna (IP₃ +60 dBm)

Housing

- | | |
|--------------|--|
| - Material | Aluminum Alloy / transparent chromate
Base: Solid Material, milled
Cover: Sheet Metal 1.5 mm |
| - Dimensions | 107.5 x 73 x 25 mm (W x D x H)
(121.5 x 101 x 25 mm overall / TNC) |
| - Mounting | 4-Hole Mounting 70 x 60 mm / \varnothing 3,5 mm |
| - Weight | 275 g |



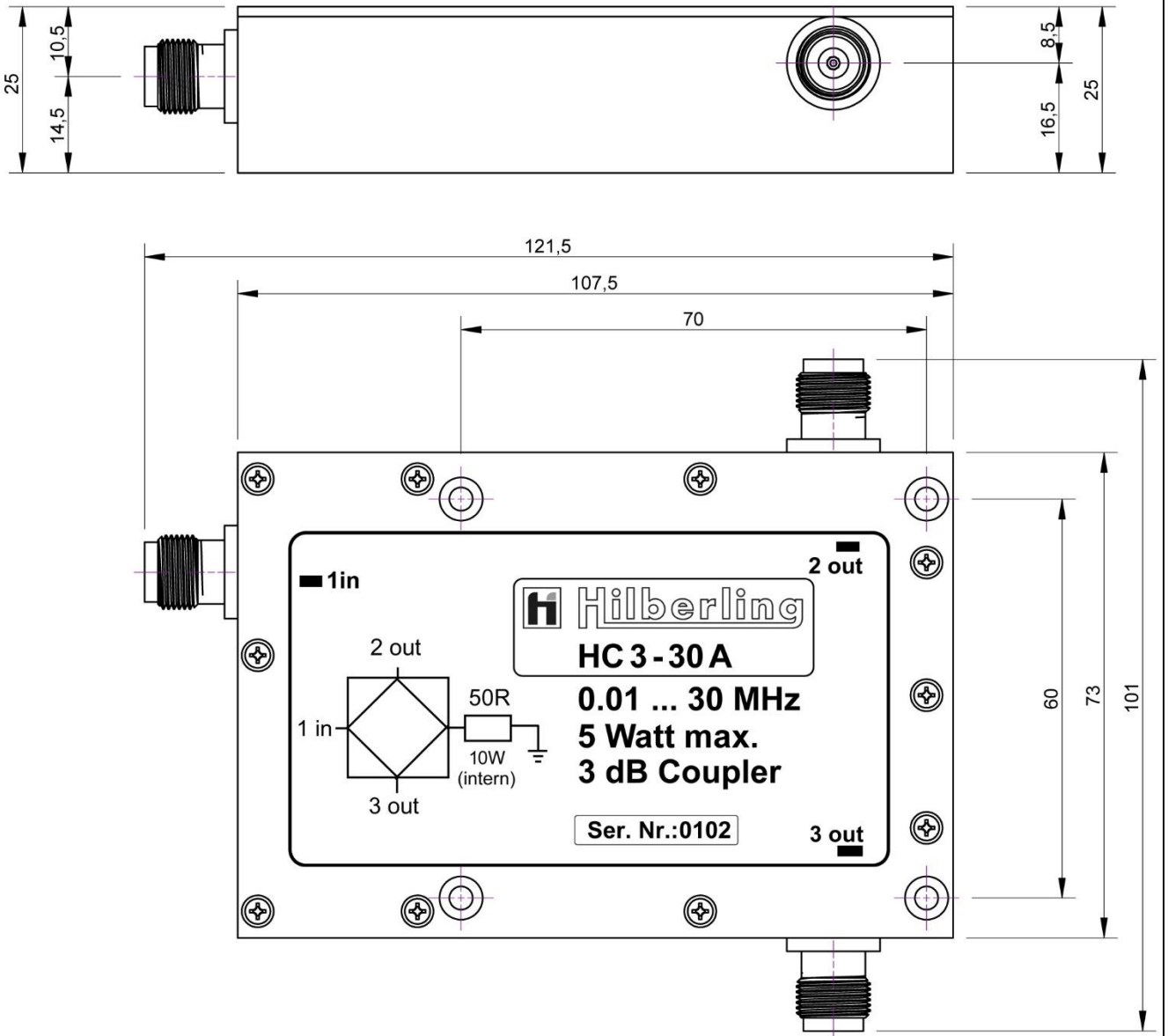
Hilberling

HF-Entwicklungslabor email:info@hilberling.de
Heinrich-Hertz-Str. 2 24790 Schacht-Audorf
GERMANY

Data Sheet

HC 3 – 30 A

Outline Drawing

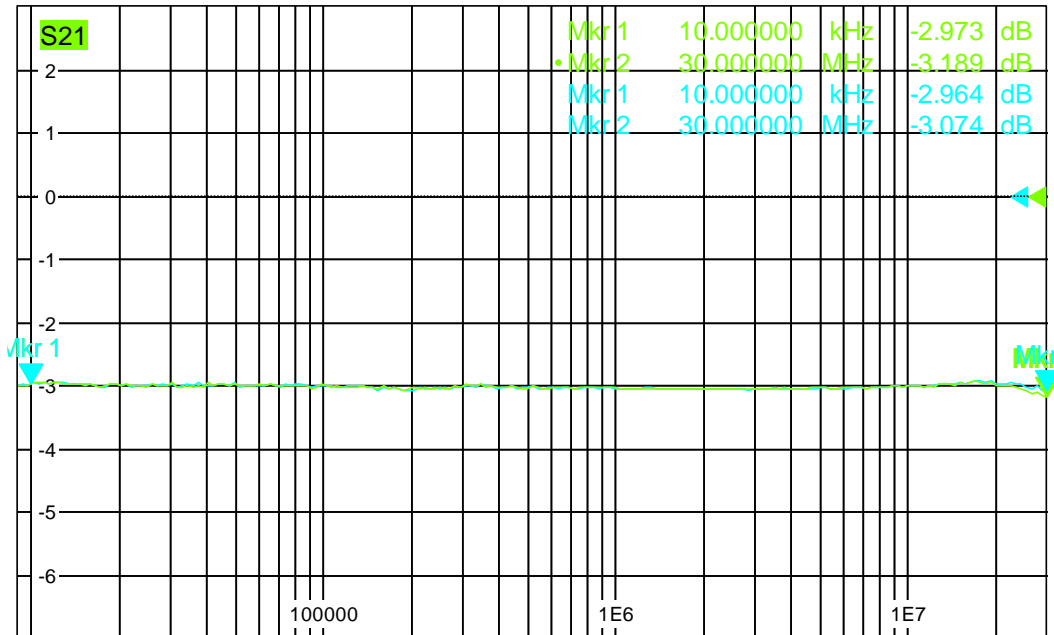




Insertion Loss S21

Trc1 **S21** dB Mag 1 dB / Ref 0 dB Cal

Mem2[Trc1] **S21** dB Mag 1 dB / Ref 0 dB



Ch1 Start 9 kHz

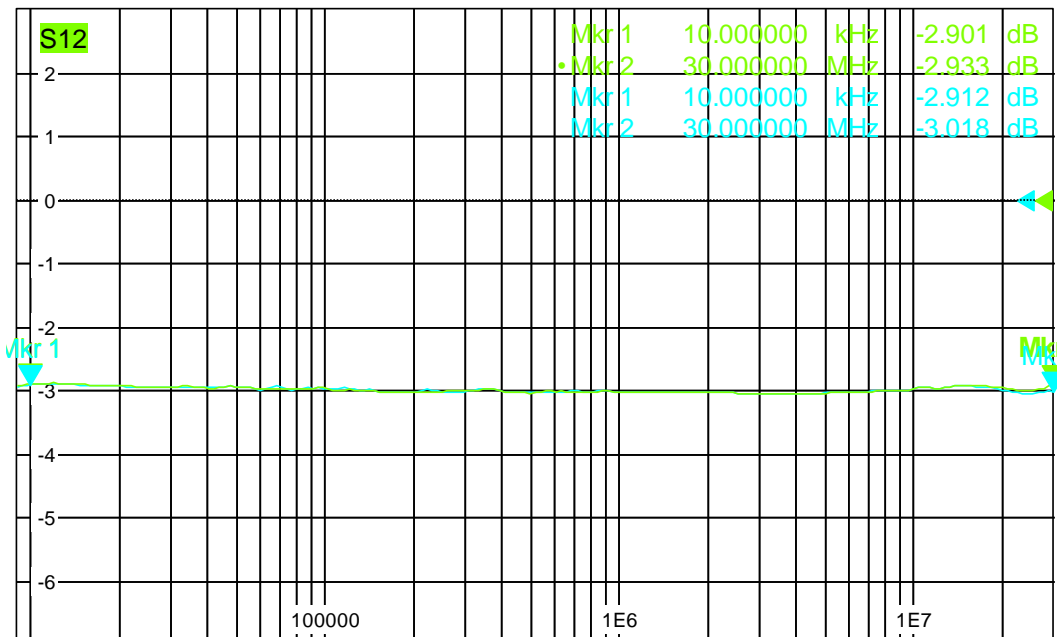
Pwr 20 dBm

Stop 30 MHz

Insertion Loss S12

Trc1 **S12** dB Mag 1 dB / Ref 0 dB Cal Smo

Mem2[Trc1] **S12** dB Mag 1 dB / Ref 0 dB Smo



Ch1 Start 9 kHz

Pwr 20 dBm

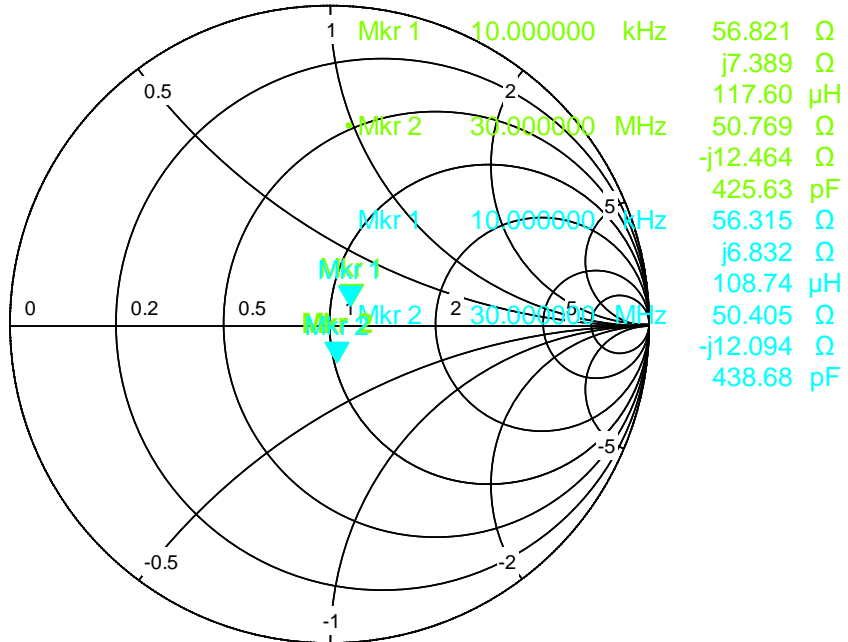
Stop 30 MHz



Input Reflection

Trc1 **S11** Smith Ref 1 U Cal Smo
Mem2[Trc1] **S11** Smith Ref 1 U Smo

S11



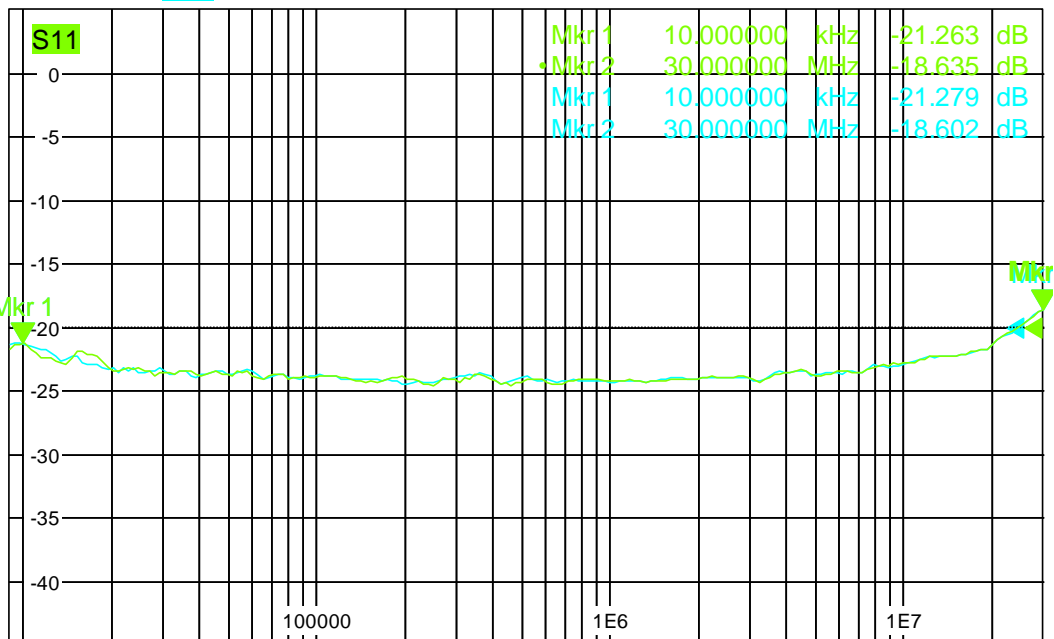
Ch1 Start 9 kHz

Pwr 20 dBm

Stop 30 MHz

Input Reflection

Trc1 **S11** dB Mag 5 dB / Ref -20 dB Cal Smo
Mem2[Trc1] **S11** dB Mag 5 dB / Ref -20 dB Smo



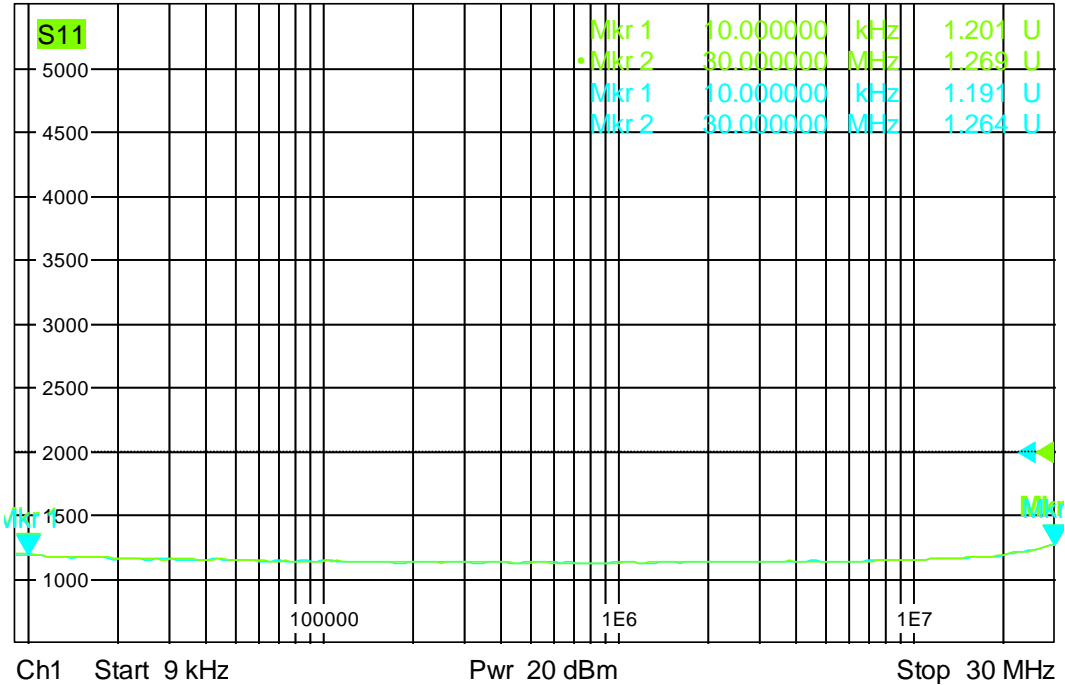
Ch1 Start 9 kHz

Pwr 20 dBm

Stop 30 MHz

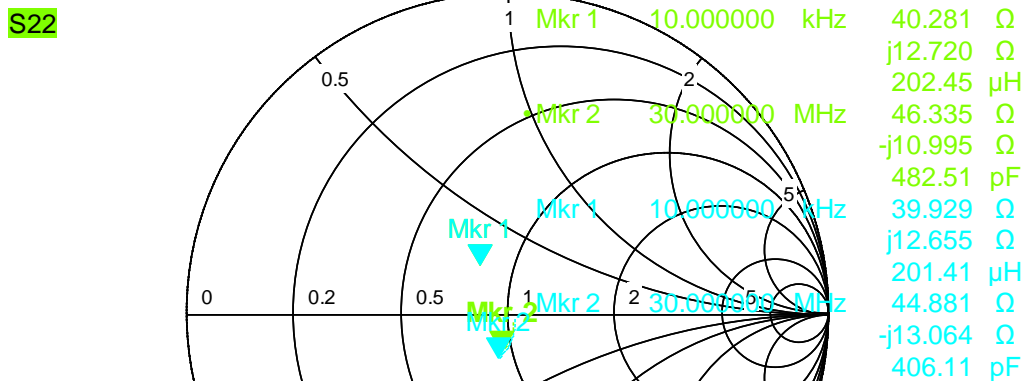
Input SWR 10 kHz ... 30 MHz

Trc1 **S11** SWR 500 mU/ Ref 2 U Cal Smo
 Mem2[Trc1] **S11** SWR 500 mU/ Ref 2 U Smo



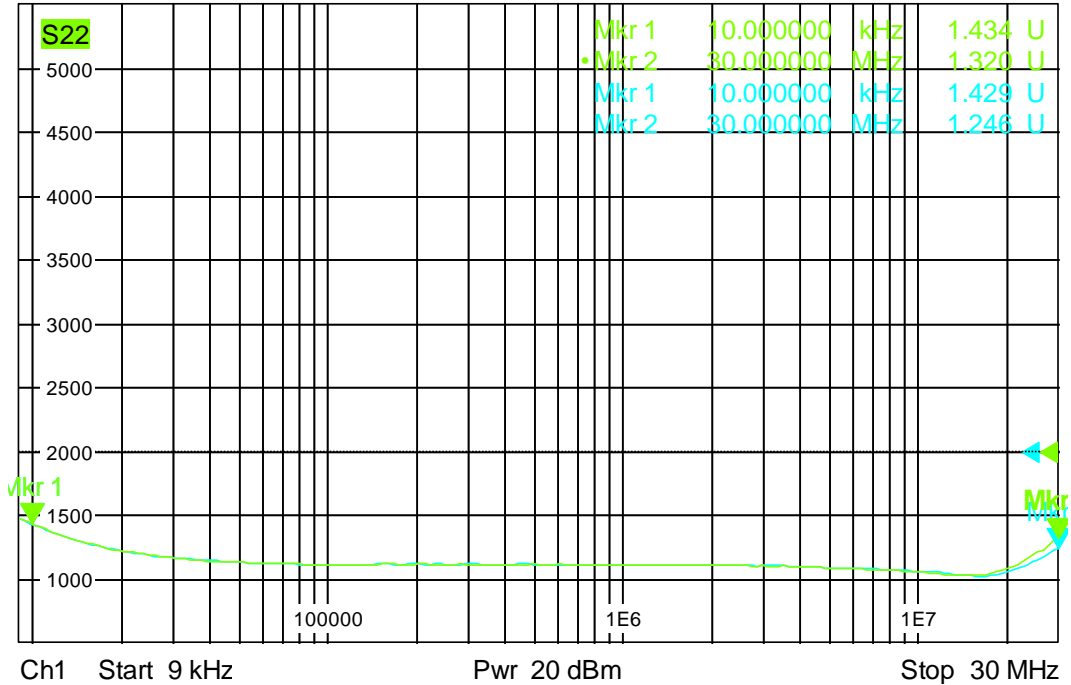
Output Reflection

Trc1 **S22** Smith Ref 1 U Cal Smo
 Mem2[Trc1] **S22** Smith Ref 1 U Smo



Output SWR 10 kHz ... 30 MHz

Trc1 **S22** SWR 500 mU/ Ref 2 U Cal Smo
 Mem2[Trc1] **S22** SWR 500 mU/ Ref 2 U Smo



Isolation

Trc1 **S13** dB Mag 5 dB / Ref -20 dB Cal Smo
 Mem2[Trc1] **S13** dB Mag 5 dB / Ref -20 dB Smo

