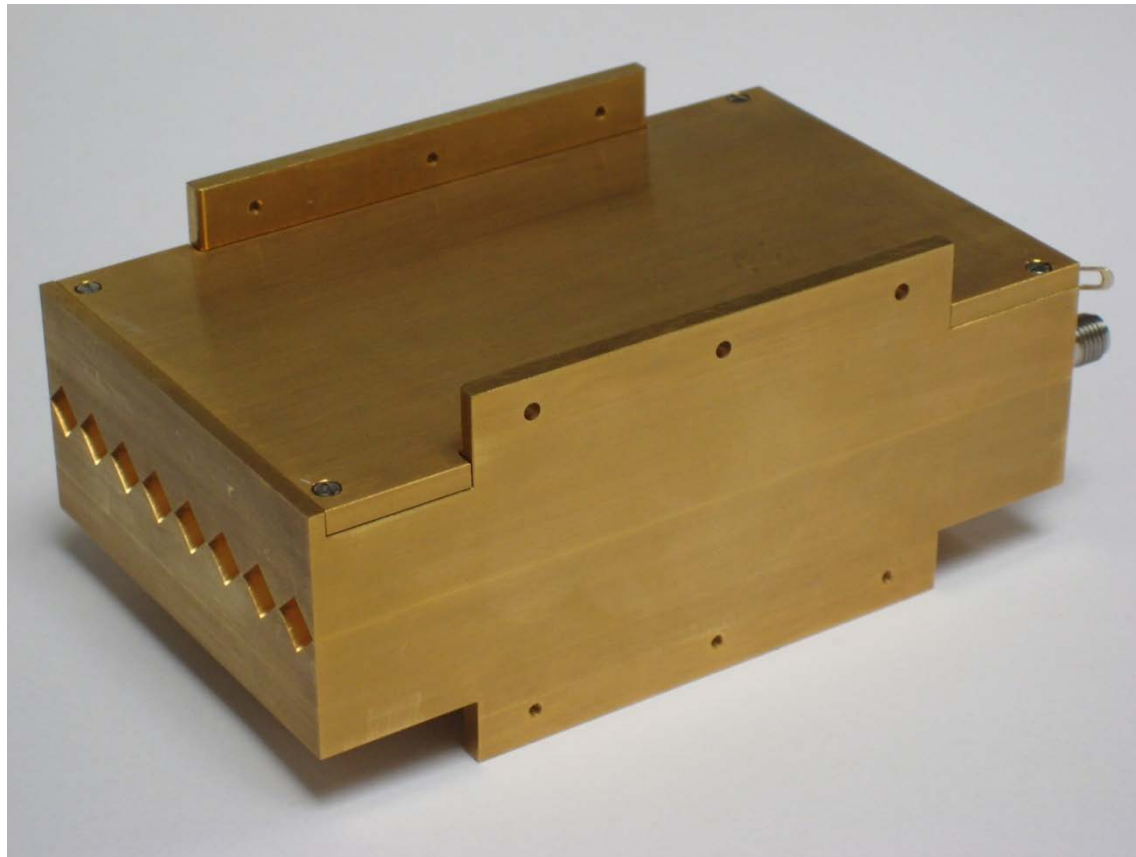


SynViewRAY Receiver Array R8-300 Product Information

SynView GmbH



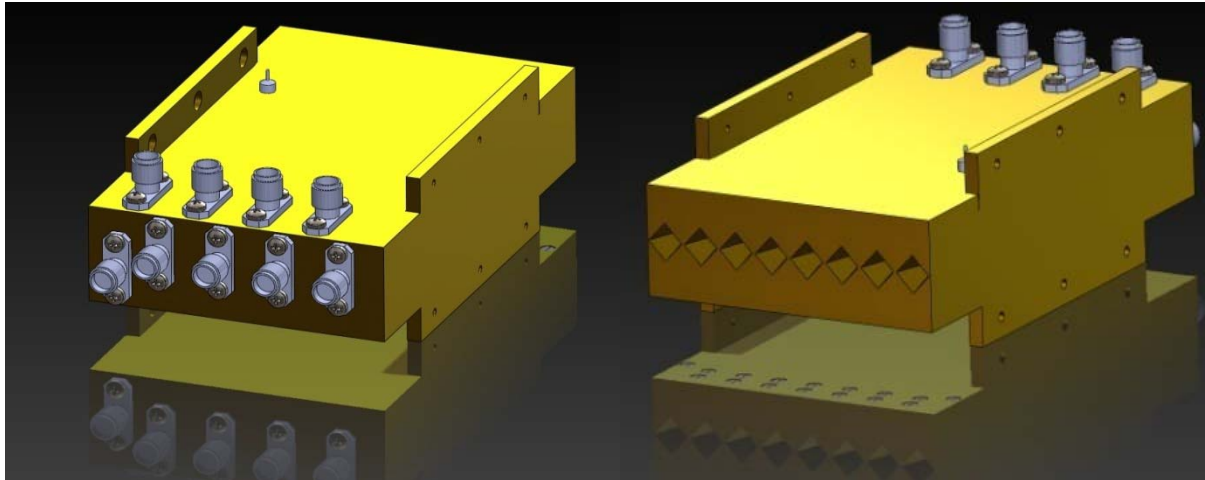
SynView Receiver Array R8-300



8 channel 230 to 320 GHz FMCW receiver array



SynView Receiver Array R8-300 Technical Data



- RF-bandwidth: 230 - 320 GHz
- RF-interface: Diagonal horn antenna; Flare angle +/- 10-12 degrees
- Pixel number: 8 total; As integrated diagonal horn
- Pixel spacing: 6-8 mm in-line diagonal horn antenna arrangement

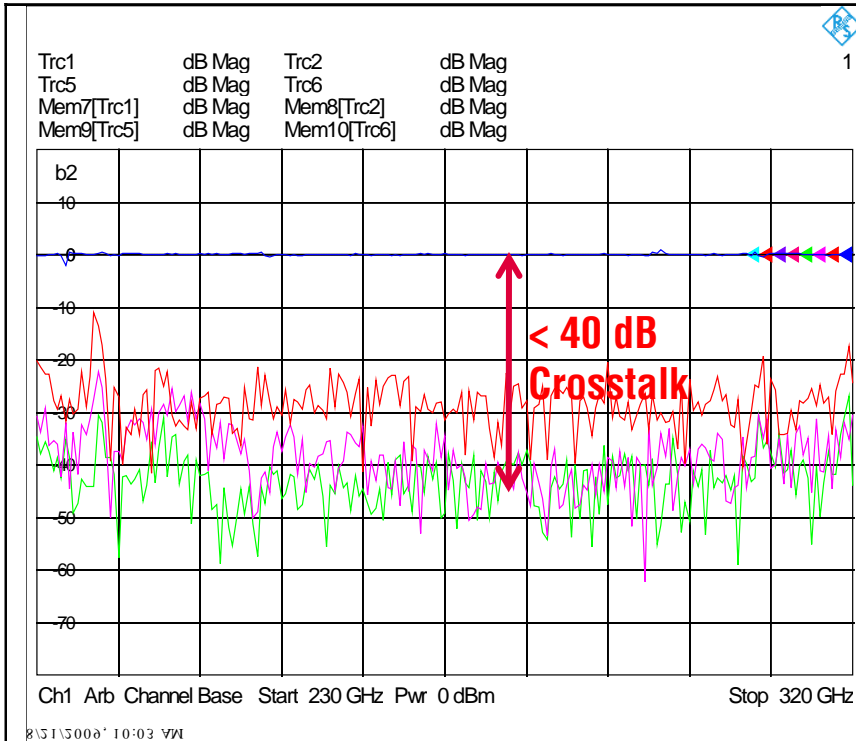
- LO-frequency: 12.8 - 17.8 GHz; For harmonic #18
- LO power: 7 - 13 dBm
- LO-interface: Single SMA-K, due to integrated LO distribution

- IF-bandwidth: 10MHz to 500MHz
- IF-amplifiers: 8 total; Integrated into module ($T_N < 200$ K; Gain per cascade 35-40 dB)

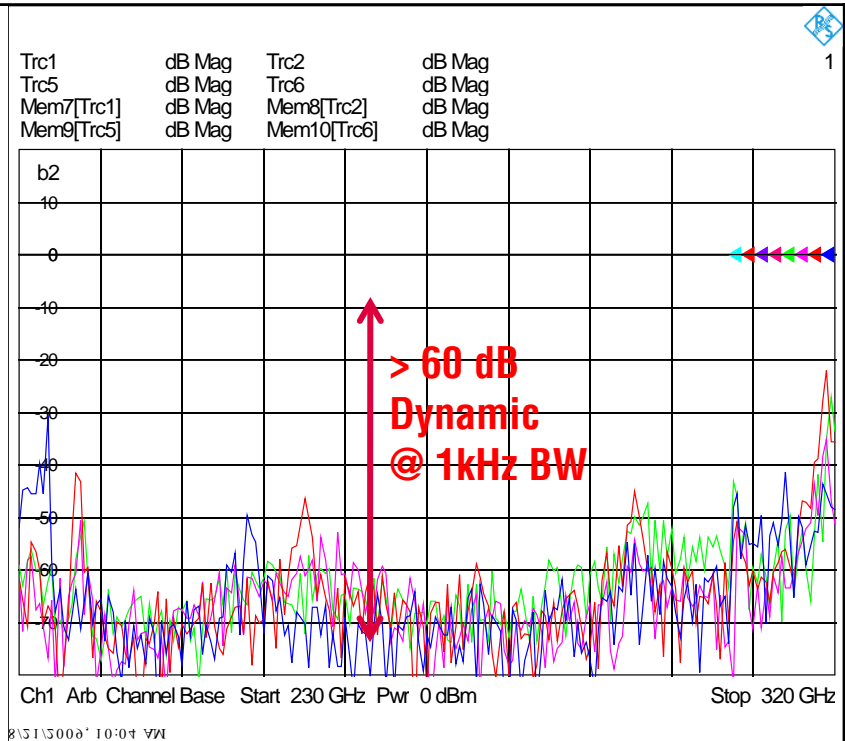
All values subject to change without notice.



Array Characterization (Focused Beam)



IF-Level norm to full focused signal
pix1-4 (blue, red, mag., gr.) with full
illumination on pix1
(IF = 20 MHz, BW 1 kHz)



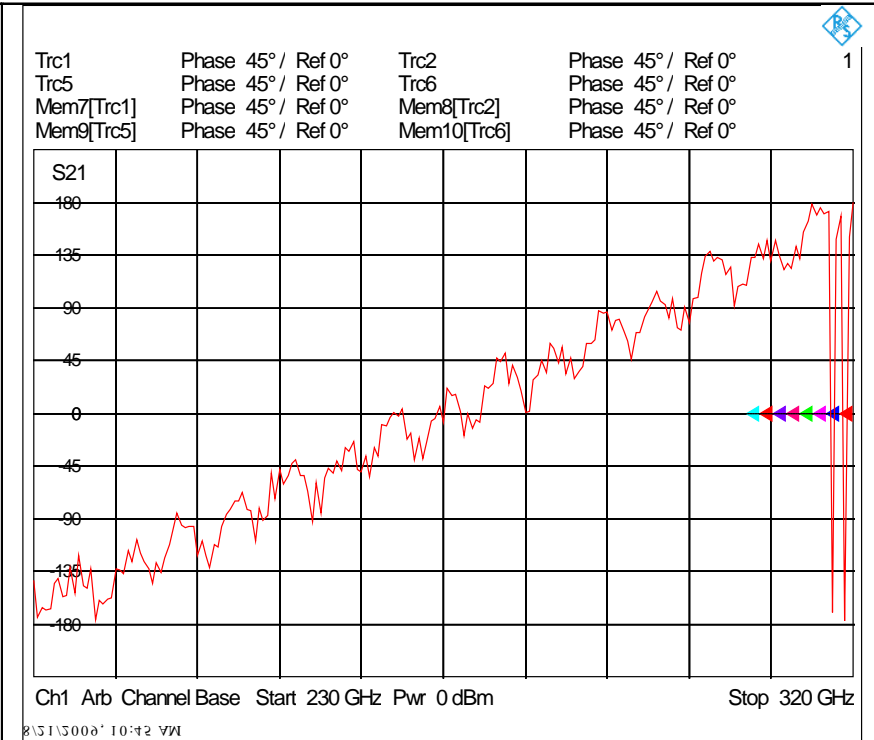
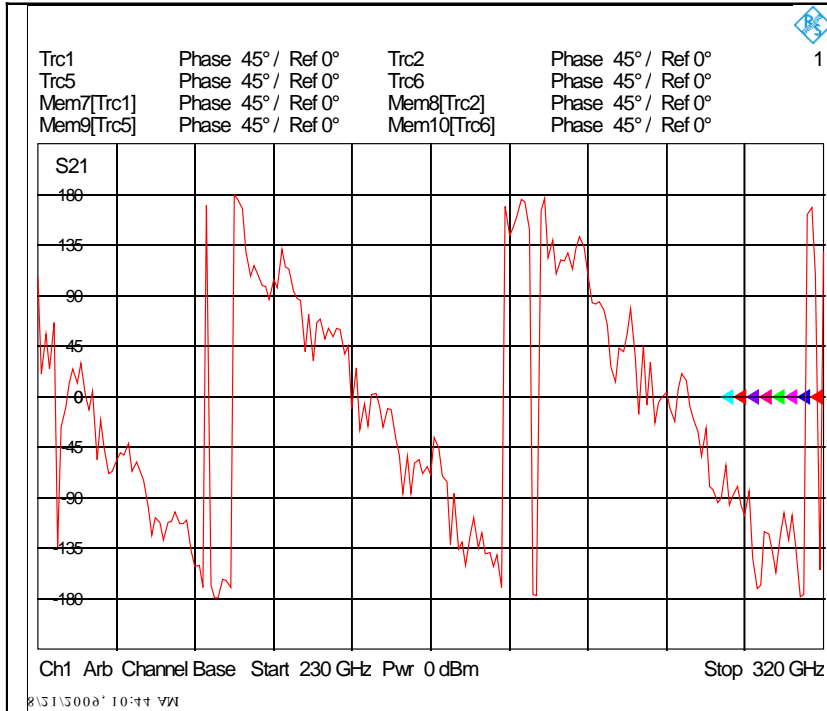
IF-Level norm to full focused signal
pix1-4 (blue, red, mag., gr.) without
illumination
(IF = 20 MHz, BW 1 kHz)

All values subject to change without notice.

High Dynamic Range



Array Characterization (rel. Phase)



Relative phase between two pixels for strong left tilted array with unfocused illumination

Relative phase between two pixels for slightly right tilted array with unfocused illumination

All values subject to change without notice.

Precise phase measurement possible



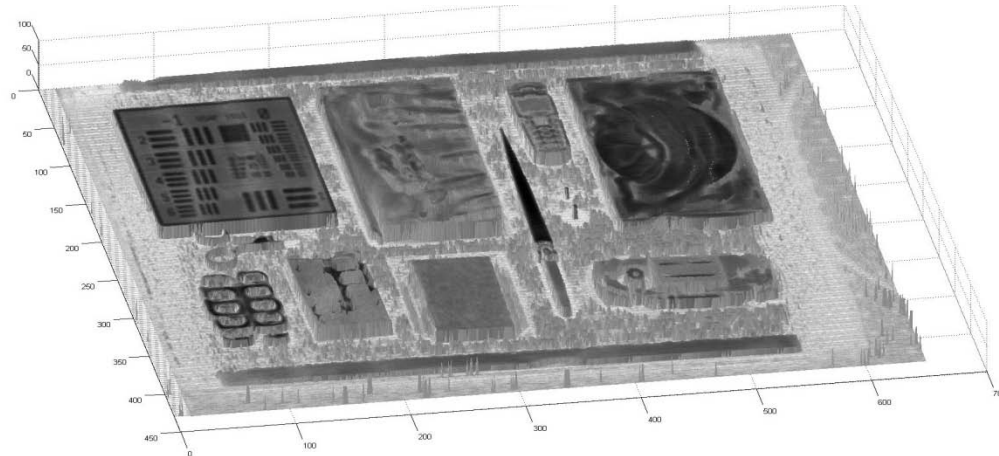
SynView Receiver Array

- 8 channel receiver array at ~300 GHz
- multiple arrays can be combined
- high dynamic range and high phase stability
- commercially available at SynView

suitable for FMCW millimeter wave imaging



Thank You



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