

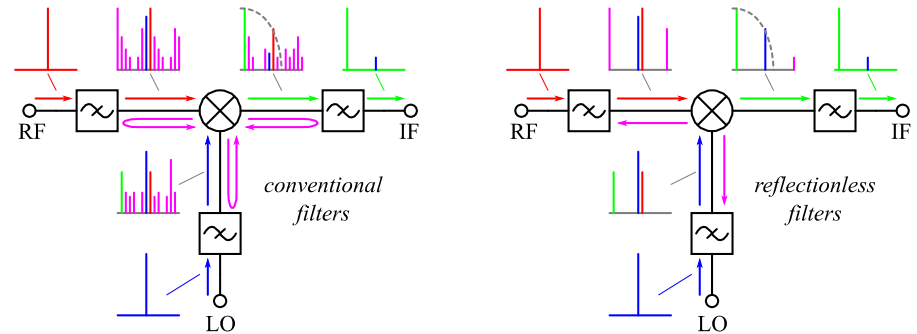


20-100GHz Reflectionless RF Filters

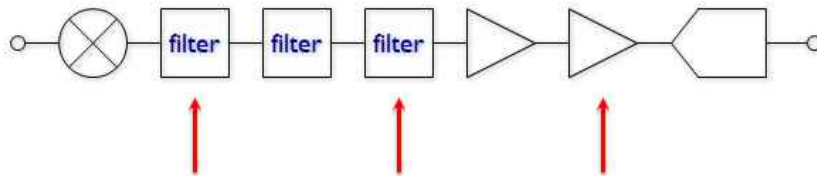


Why it matters?

- Good impedance match in pass-band, stop-band and transition band
- Improves out-of-band termination in mixers and amplifiers for better linearity and stability
- Order of magnitude greater amplitude and phase stability than conventional filter types.
- Complete filter requires no tuning and reduces cost



Comparison of conventional filter with reflectionless filters showing absorption of spurious stop-band signal power rather than reflecting it



Reflectionless filters are intrinsically-matched at all frequencies and can be cascaded and distributed throughout the signal path, like attenuator “pads.”

When distributed throughout the signal path, reflectionless filters often improve linearity, dynamic range, sensitivity and stability.

Key Milestones

- Technology Readiness Level (TRL) 2 - Aug 2018
- USPTO patent pending



National Radio Astronomy Observatory
Tech Transfer
public.nrao.edu/tech-transfer
 434-296-0236
 tto@nrao.edu



Facility