

Special RTMS: DRTM_KLM & DRTM_HOM

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Agenda

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- Introduction
- DRTM-KLM
- DRTM-HOM

Introduction

- MTCA.4 RTMs
- Z3 Analog Class A1.1 Compatible
- Mainly paired with DAMC-DS800

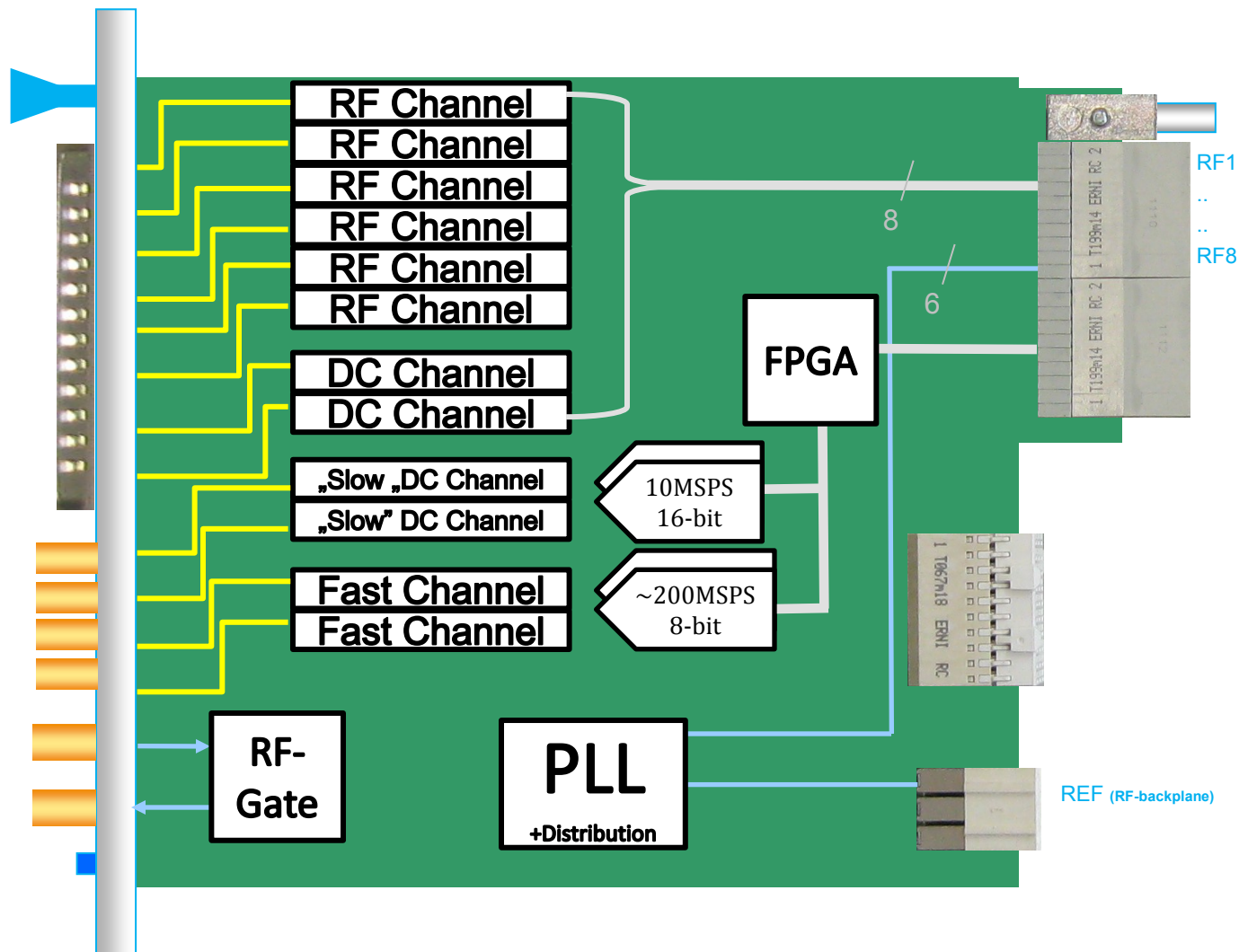
DRTM-KLM

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- 12-bit Fast ADCs (DS800) @ 780 MSPS
 - 6 RF Channels @ 1.3GHz
 - 2 DC Channels
- 2 „Fast” signals with low resolution requirements
- 2 „Slow” signals

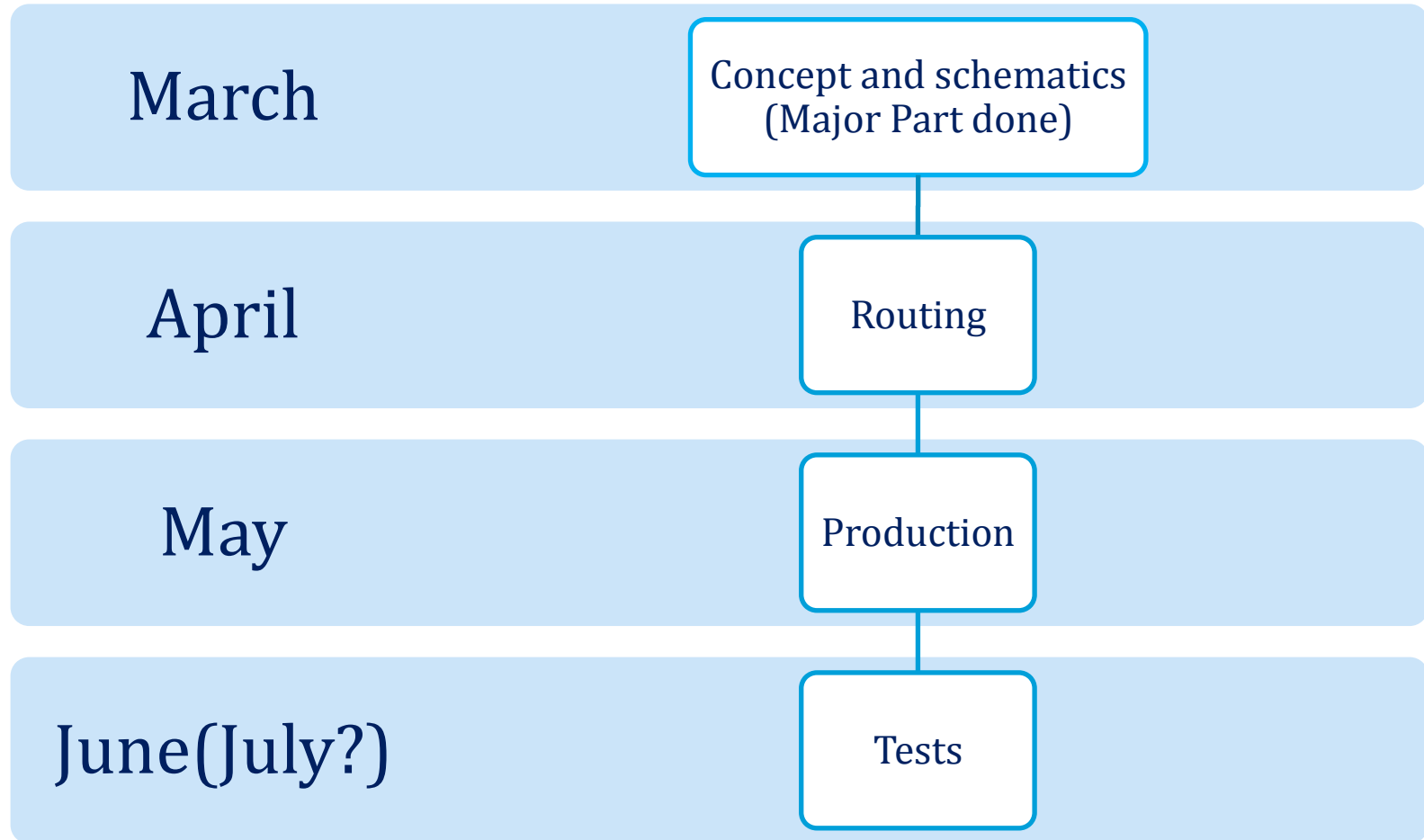
DRTM-KLM

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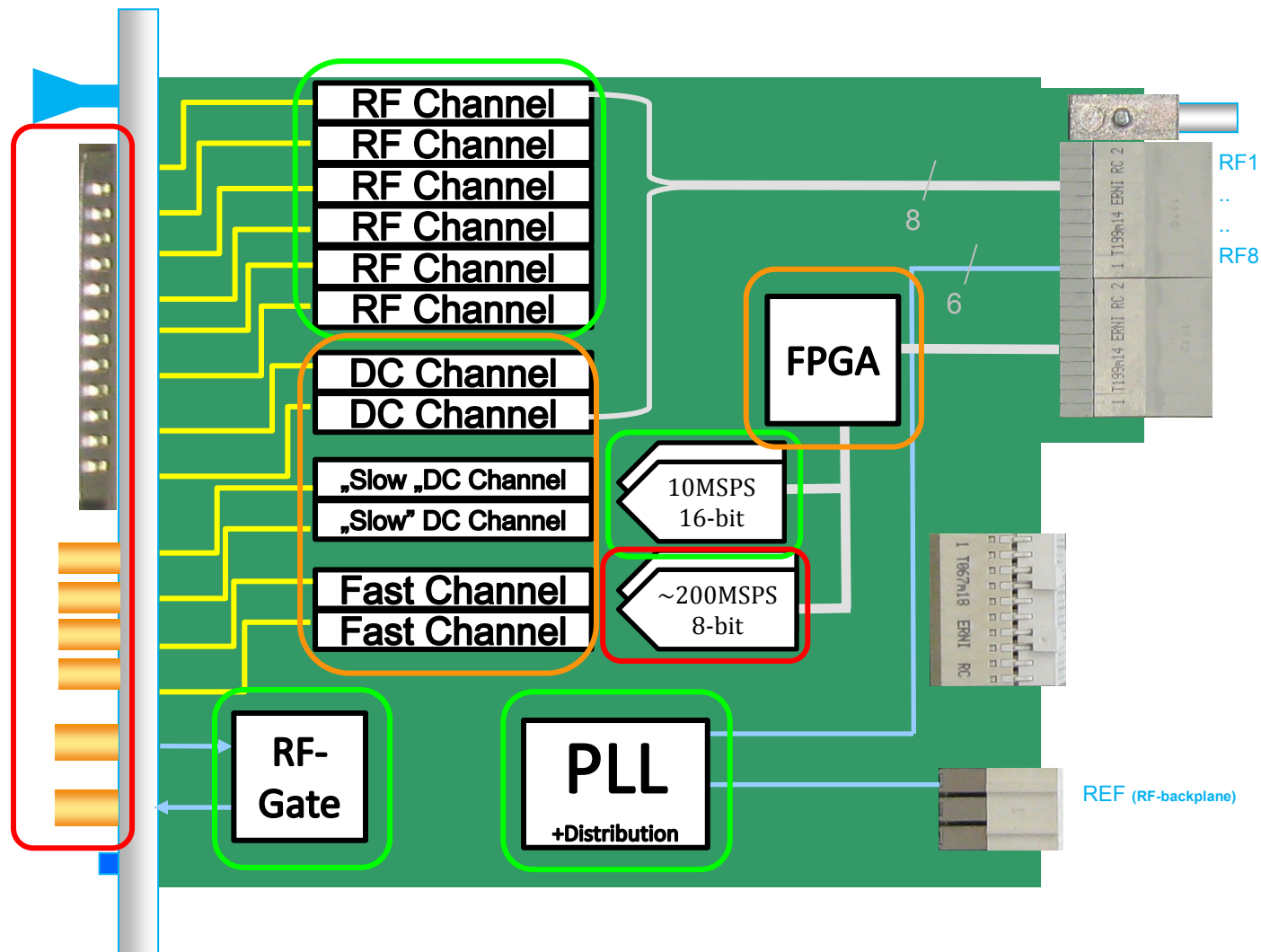
KLM - Timeline

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DRTM-KLM

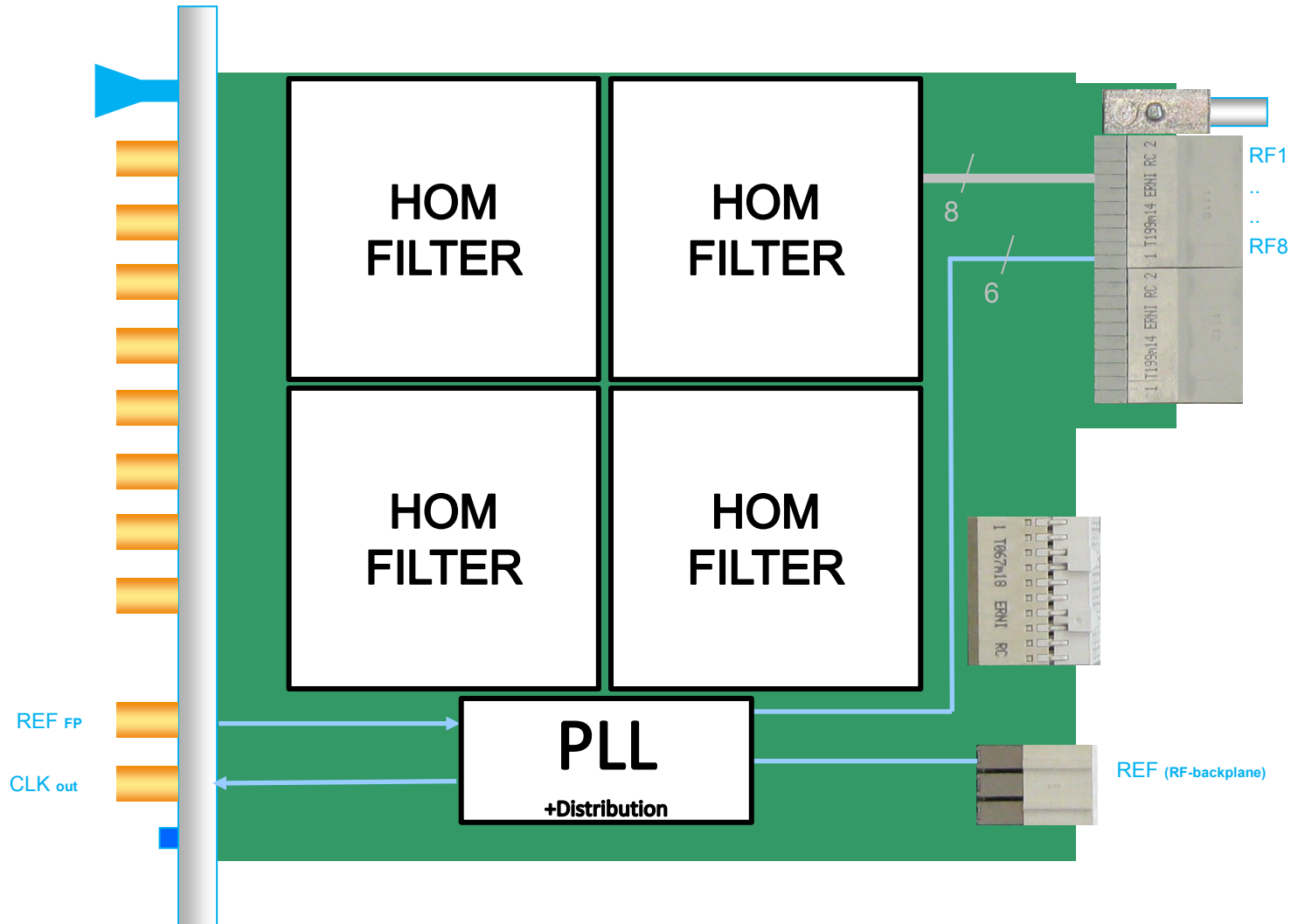
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DRTM-HOM

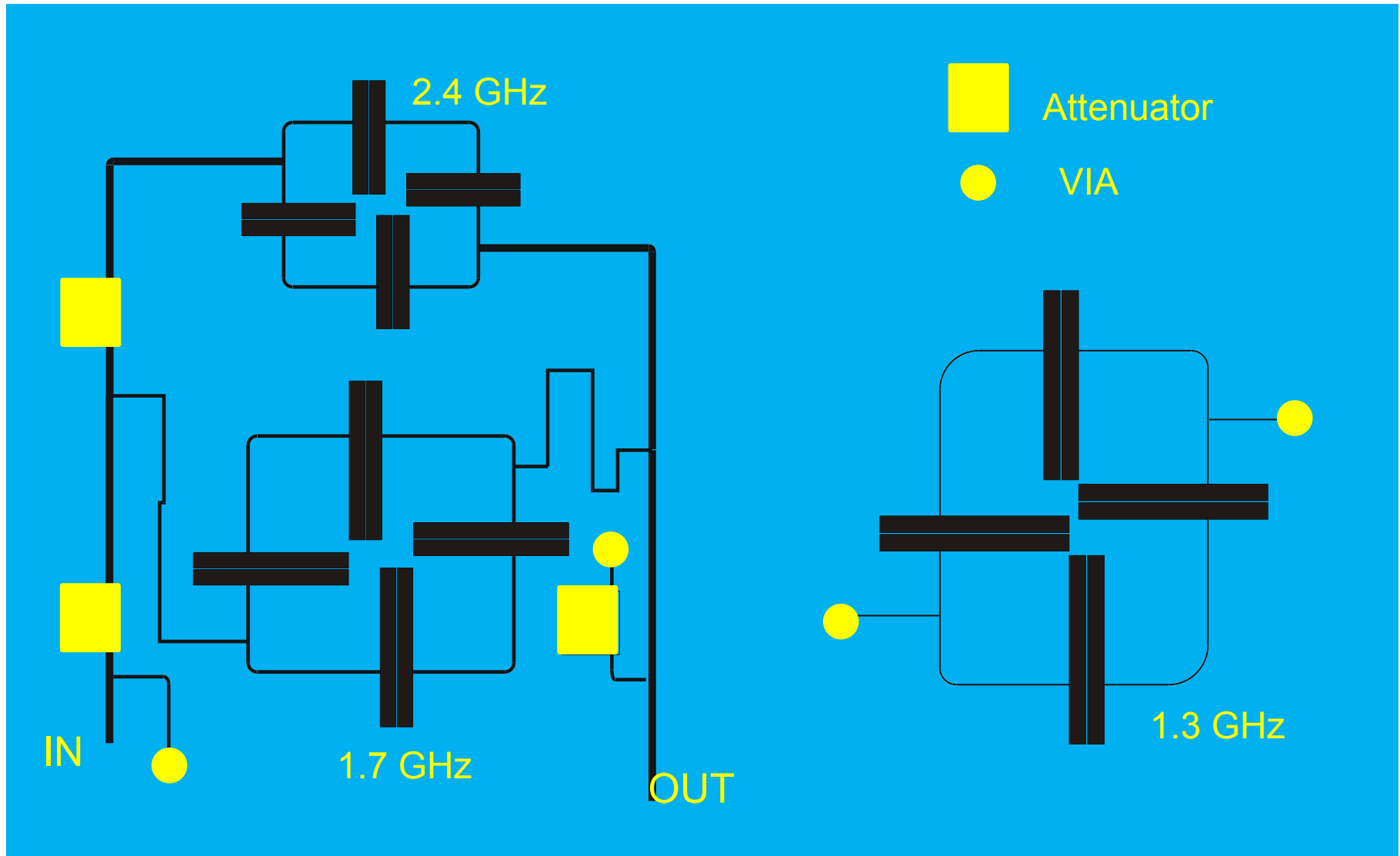
- 8 Channels
- 1.3, 1.7 and 2.4 GHz each

DRTM-HOM



HOM Filter Design

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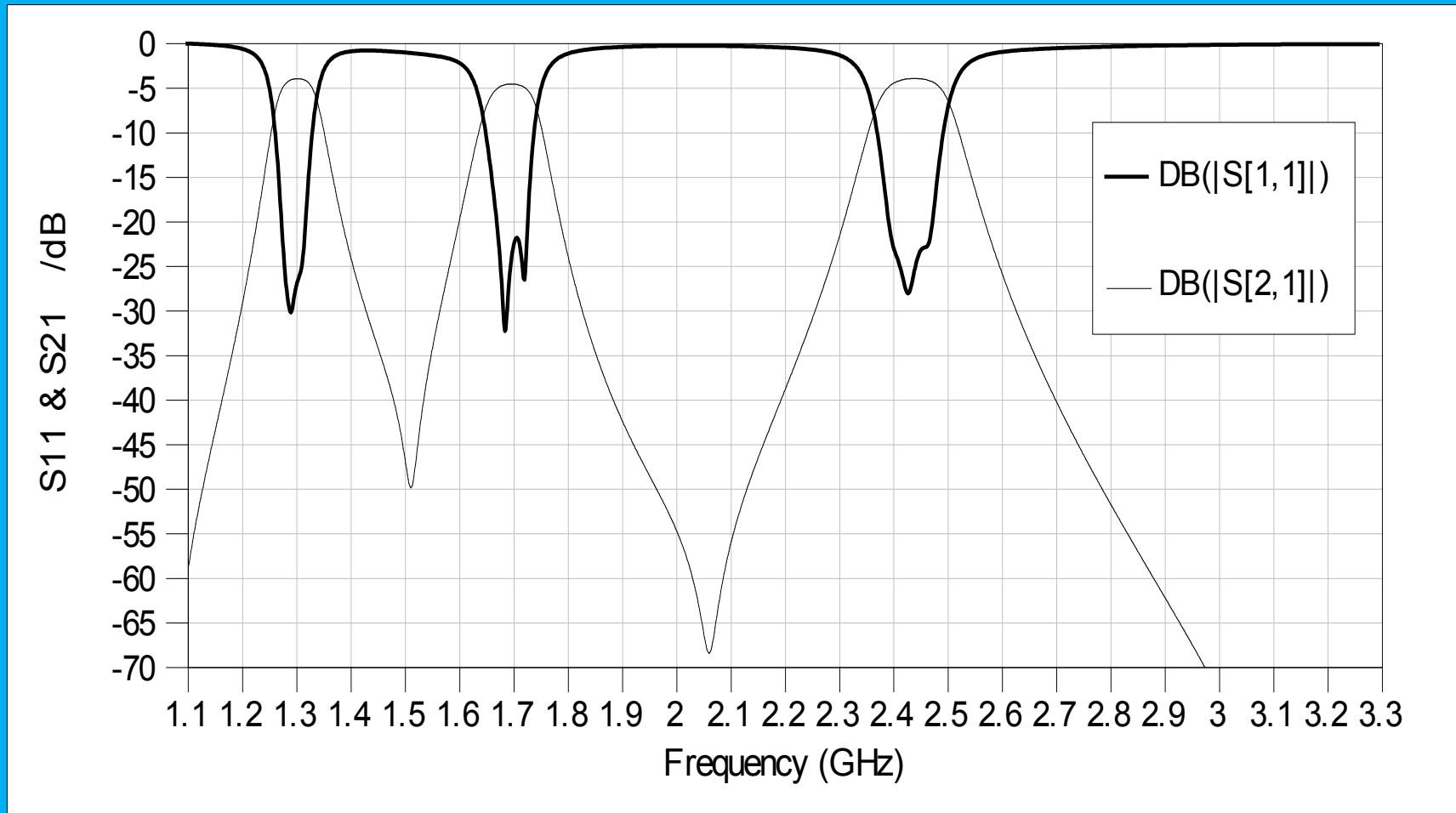


HOM Filter Design

- $f_1=1300$ MHz, BW=37 MHz (at RL=-20 dB), $IL_0=4$ dB, $n=4$ stripline, substrate height 0.204 mm, size 35x35 mm
- $f_2=1700$ MHz, BW=55 MHz (at RL=-20 dB), $IL_0=4.5$ dB, $n=4$ microstrip, substrate height 0.204 mm, size 45x35 mm
- $f_3=2400$ MHz, BW=74 MHz (at RL=-20 dB), $IL_0=4$ dB, $n=4$ microstrip, substrate height $h_1=0.204$ mm, $h_2=0.25$ mm size 45x25 mm
- (2 and 3 together on the same layer) size **45x60 mm**
- all filters (2 and 3 up, 1 down) size needed **55x70 mm - (max)**

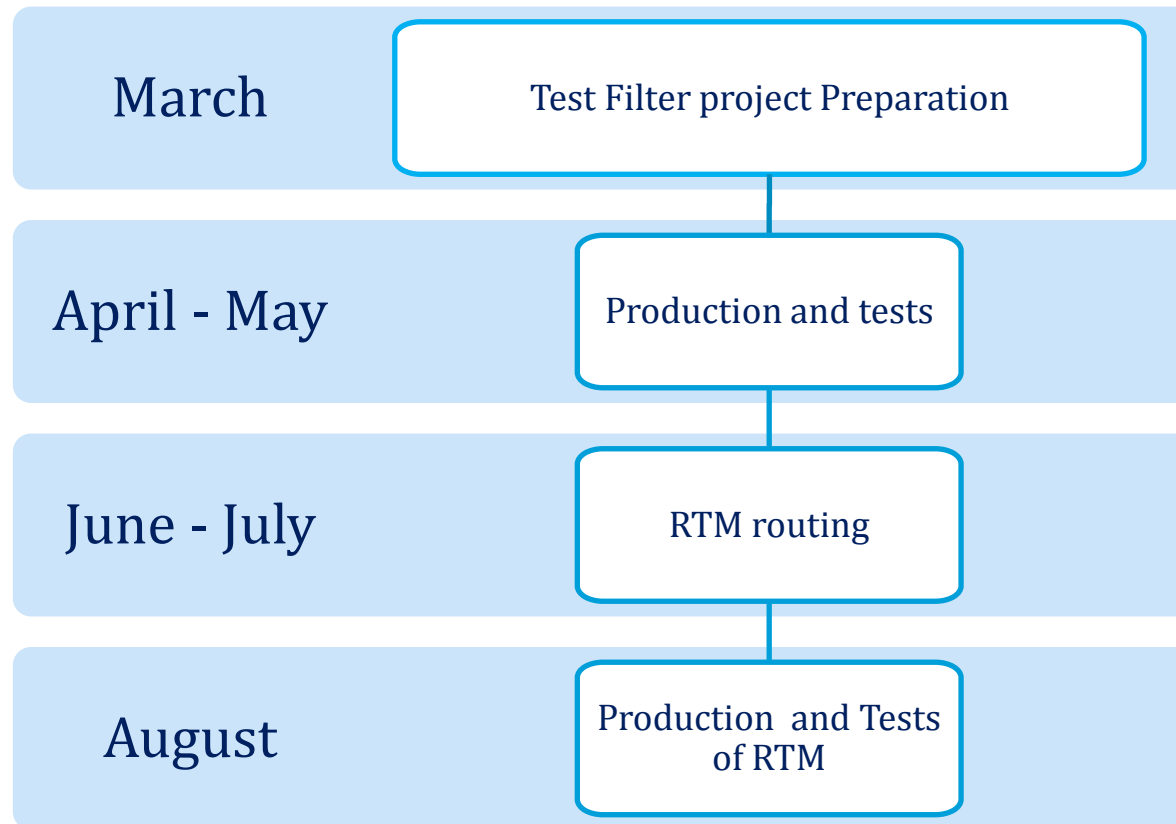
HOM Filter Characteristics

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HOM - Timeline

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Thank you for your attention

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