

# Roadmap for Teledyne SP Devices' high speed MTCA.4 digitizers

- ADQ7 update
- ADQ8 roadmap
- ADQ3 roadmap



**ADQ7**  
14 bits  
1/2 channels  
10/5 GSPS



**ADQ14**  
14 bits  
2/4 channels  
2/1 GSPS



**ADQ412**  
12 bits  
2/4 channels  
1-4 GSPS

# 3<sup>rd</sup> generation products

Introduced 2015 - 2017



## 14 bits leading digitizer family

	<b>ADQ14</b>	<b>ADQ7</b>
Sample rate GSPS	2 / 1	10 / 5
Channels	2 / 4	
Bandwidth GHz	1.2 / 0.7	3
White Rabbit		Q1-18
10 GbE		Q4-17
USB3.0	Yes	Yes
GPIO	Yes	
FW DAQ	Yes	Yes
FW pulse detection	Yes	Q1-18
FW averaging	Yes	Yes
FW SDR	Yes	Yes

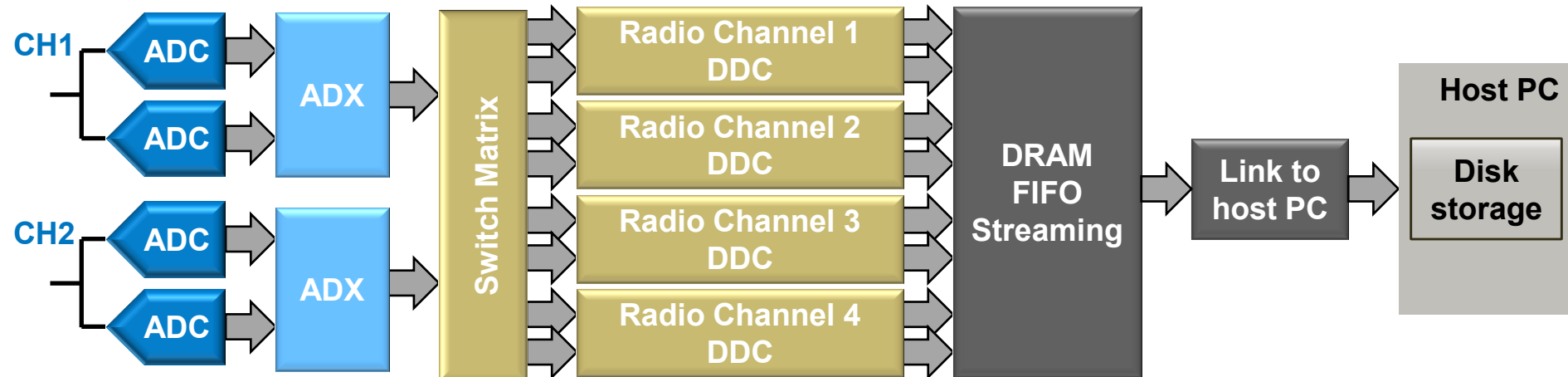


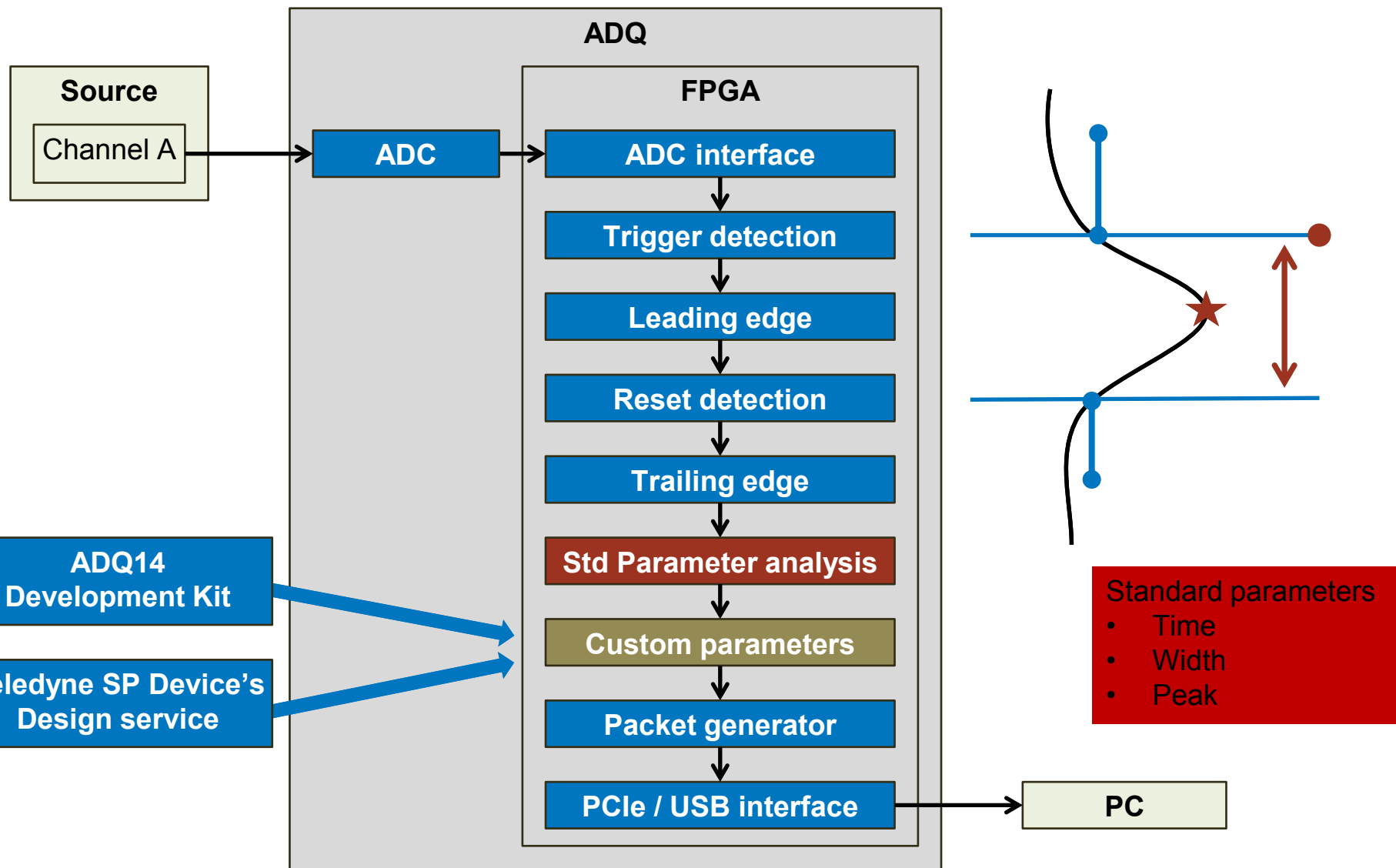
# ADQ7-FWSDR

Firmware for software defined radio



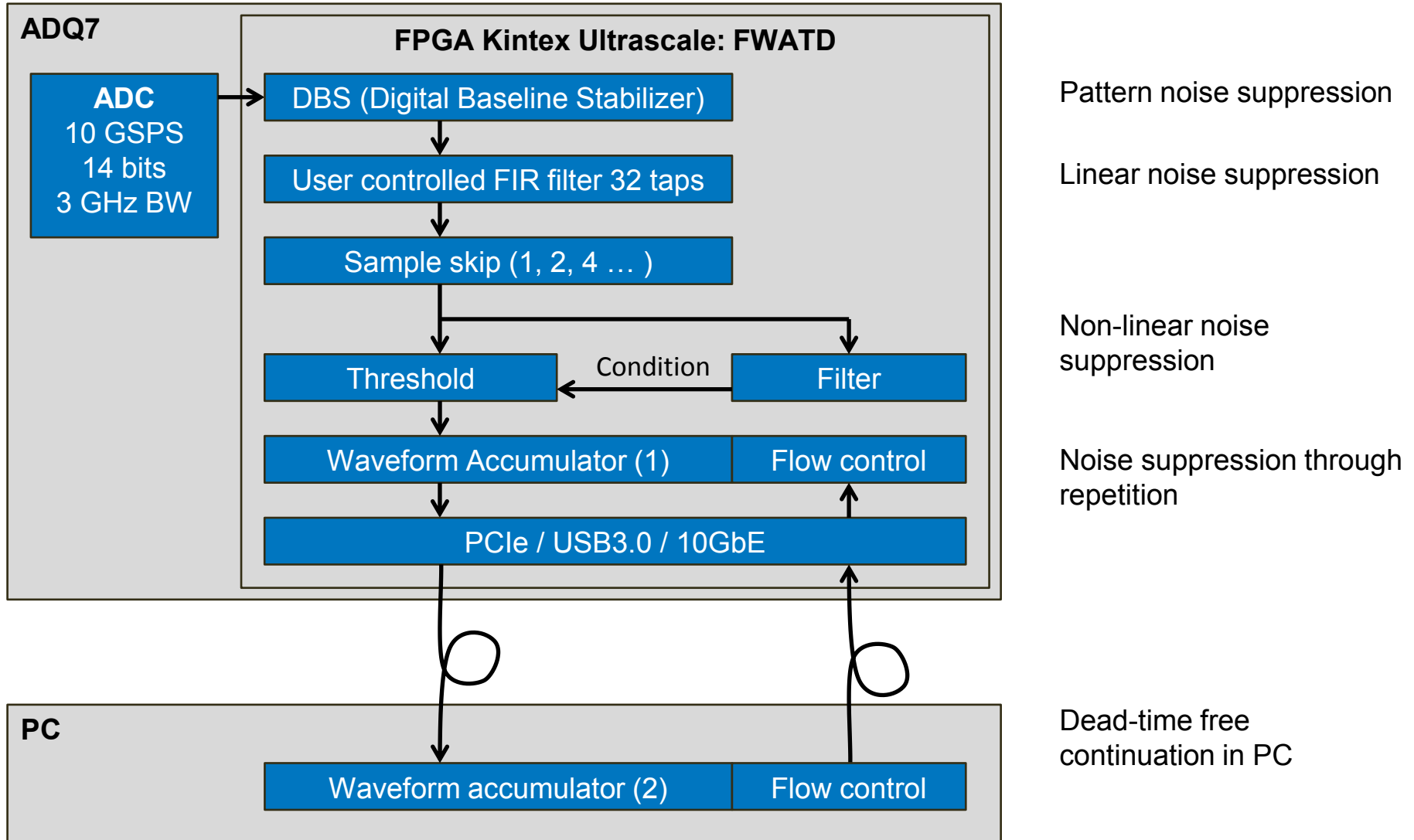
- Two analog RF channels
- Streaming of 4 separate digital RF channels
- Sustained streaming to disk > 5 GBytes/s
- ADX interleaving technology





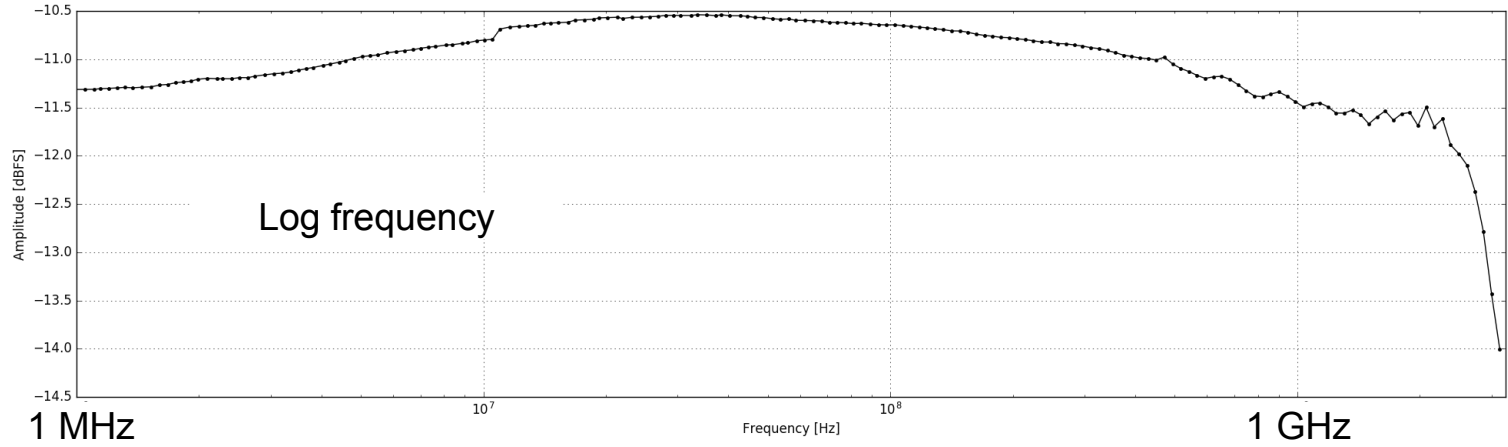
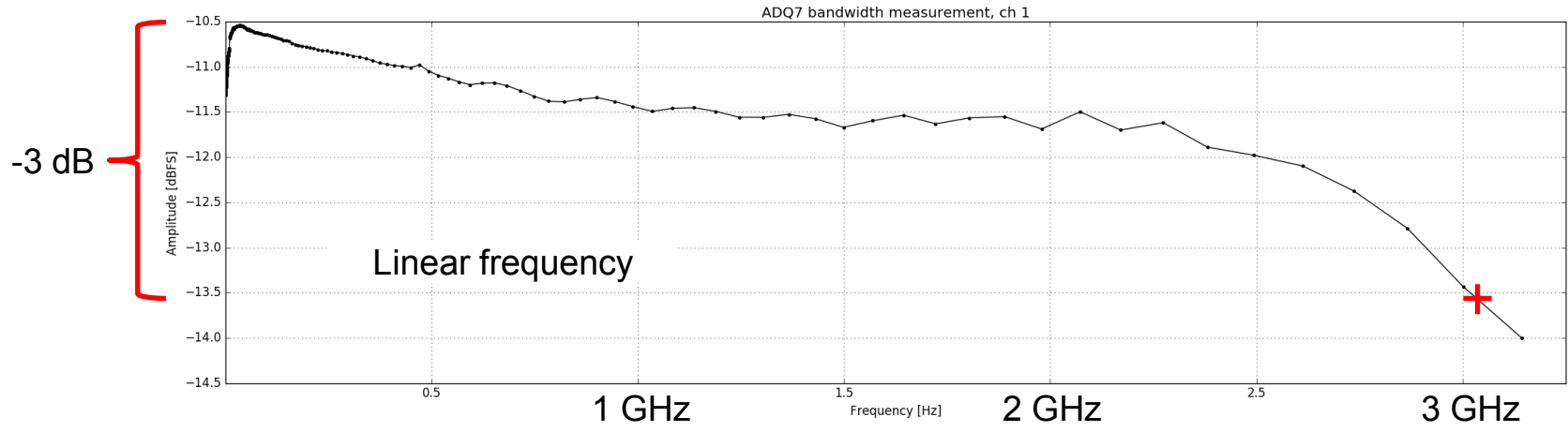
# ADQ7-FWATD

Firmware for noise suppression



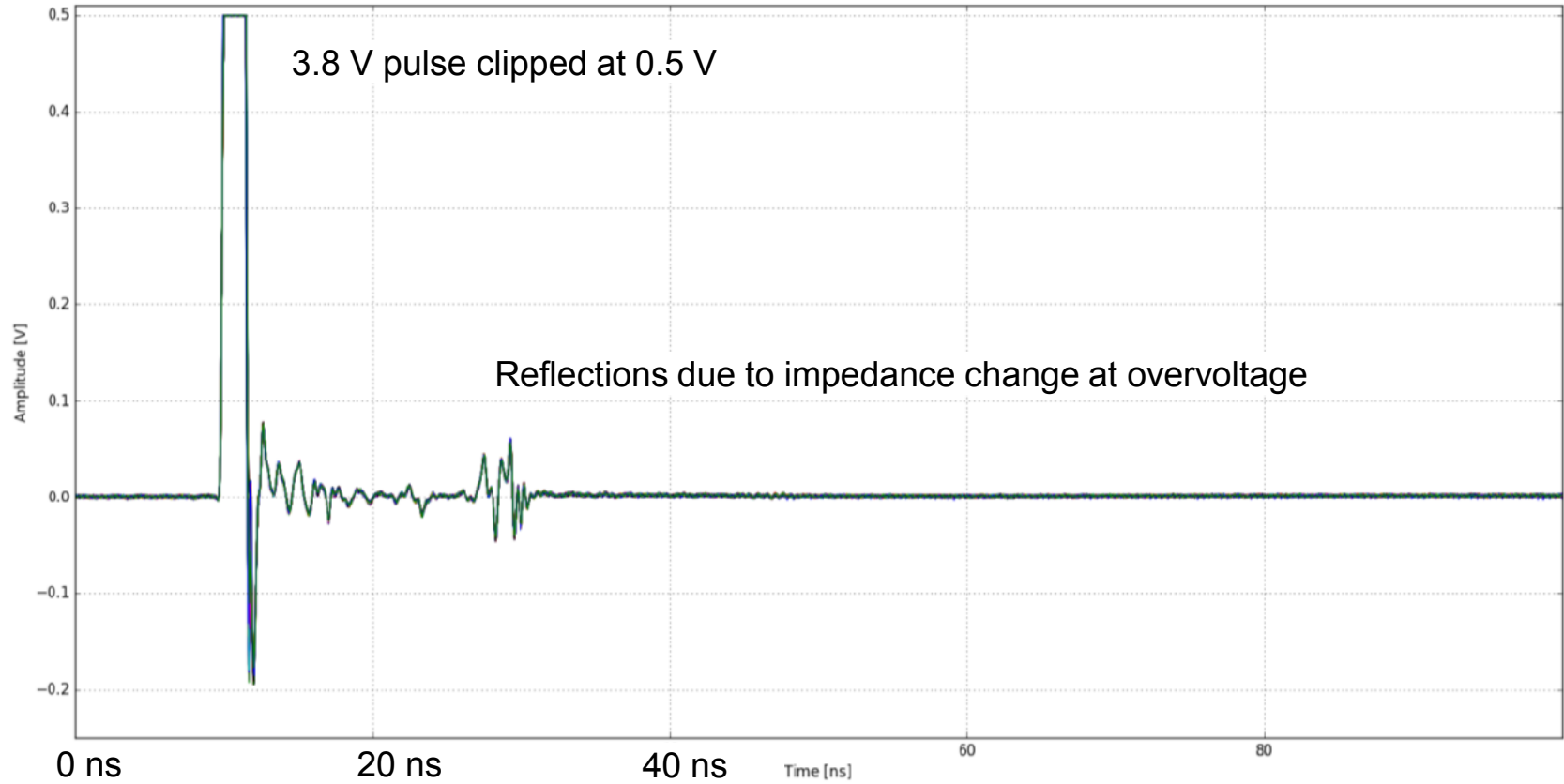
# ADQ7 Bandwidth

## 1 channel 10 GSPS



# ADQ7 Overvoltage Recovery

1 channel 10 GSPS



The future is here



**ADQ3**  
8 bits  
8 – 1 channels  
1 – 10 GSPS

**ADQ8**  
10 bits  
8 – 1 channels  
1 – 10 GSPS

**ADQ7**  
14 bits  
1/2 channels  
10/5 GSPS

**ADQ14**  
14 bits  
2/4 channels  
2/1 GSPS

**ADQ412**  
12 bits  
2/4 channels  
1-4 GSPS





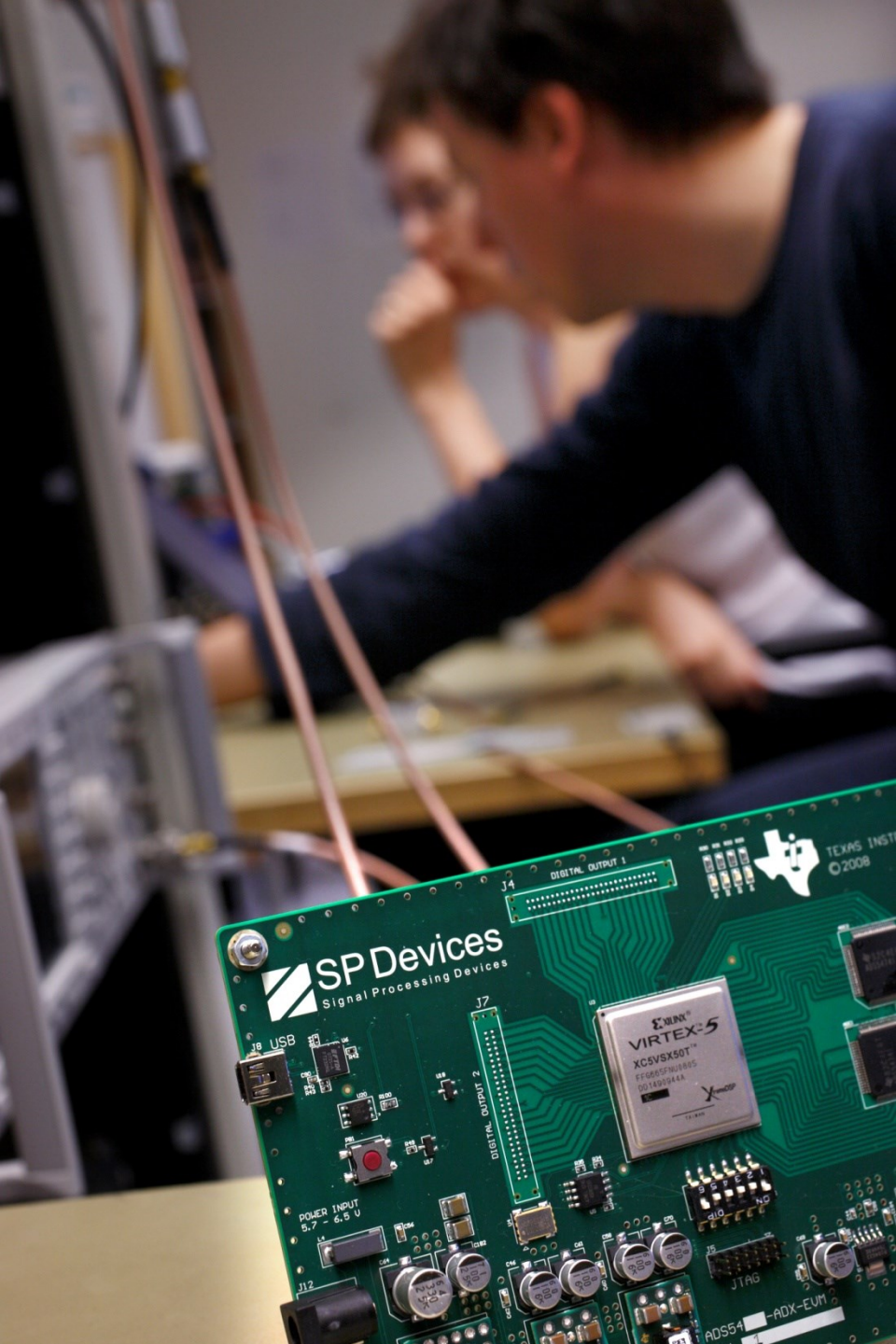
- MTCA community is important technology driver
  - Early involvement in development
- Why both ADQ8 and ADQ3
  - ADQ8 has 10b resolution – high fidelity
  - ADQ3 has one byte per sample – efficient data format
- Open topics
  - 10 GbE link
  - White Rabbit built-in or on chassis level
  - 8 – 1 channels and 1 – 10 GSPS applications
  - GPIO
  - Applications
  - Firmware options

### ADQ3

8 bits  
8 – 1 channels  
1 – 10 GSPS

### ADQ8

10 bits  
8 – 1 channels  
1 – 10 GSPS



## Safe harbor statement

The information is intended to outline Teledyne Signal Processing Devices Sweden AB's ("SP Devices") general product direction/roadmap. It is presented for information purposes only, and may not be incorporated into any contract. It is not a commitment to deliver any material, code, functional capabilities, and should not be relied upon in making purchasing decisions. The development, release, and timing of any products, features or functional capabilities described herein remains at the sole discretion of SP Devices.

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