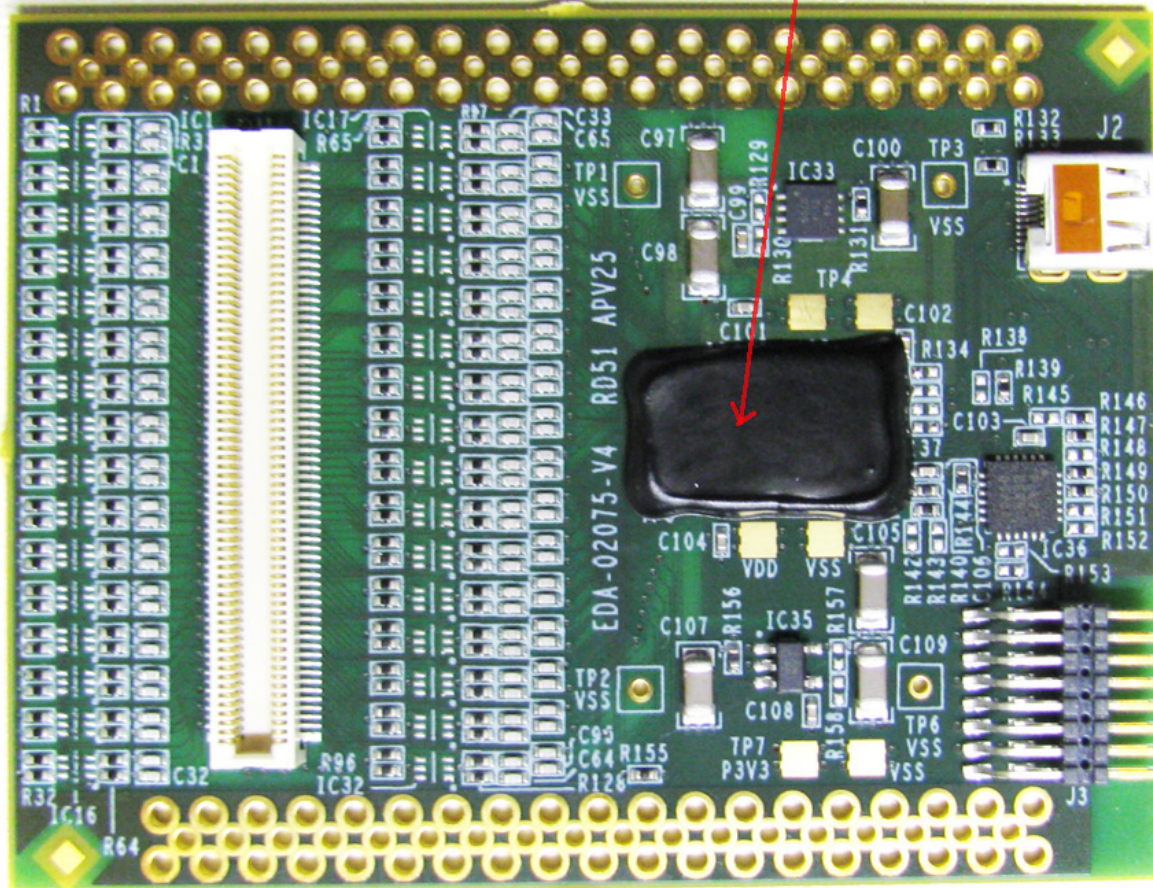


# APV and VMM hybrid readout

# APV hybrid (analogue) ca. 2000 produced

Globtopped APV25 chip below

50 x 66



1 x HDMI-Micro

PLL

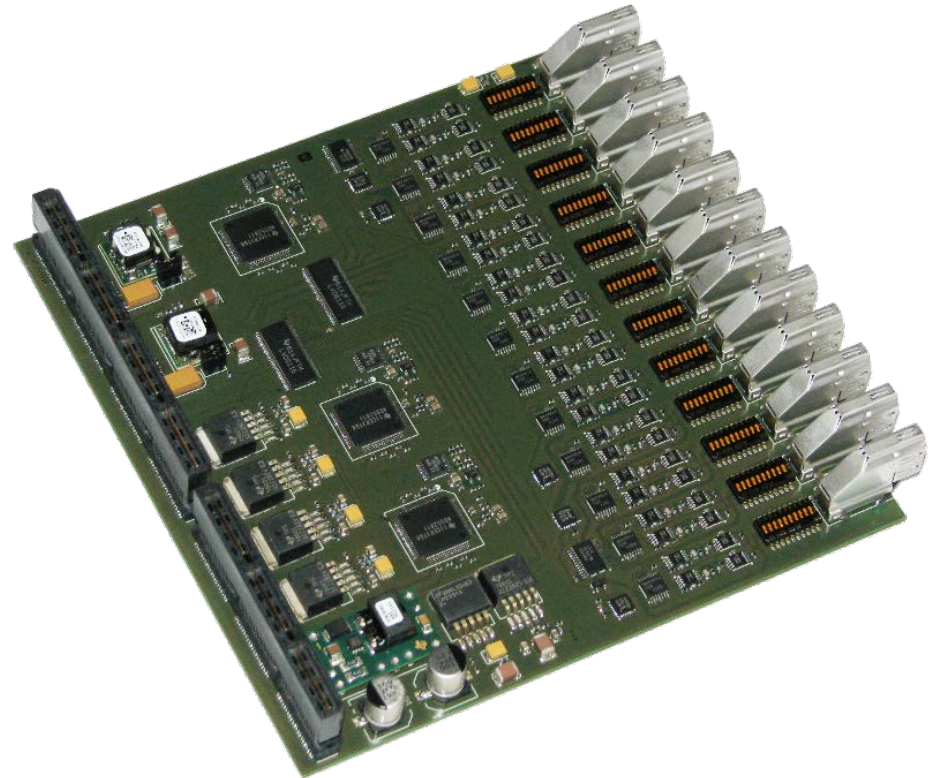
Master/Slave  
extension cable

# ADC cards for APV

ADC classic (8 HDMI ports)



ADC ATCA (12 HDMI ports)



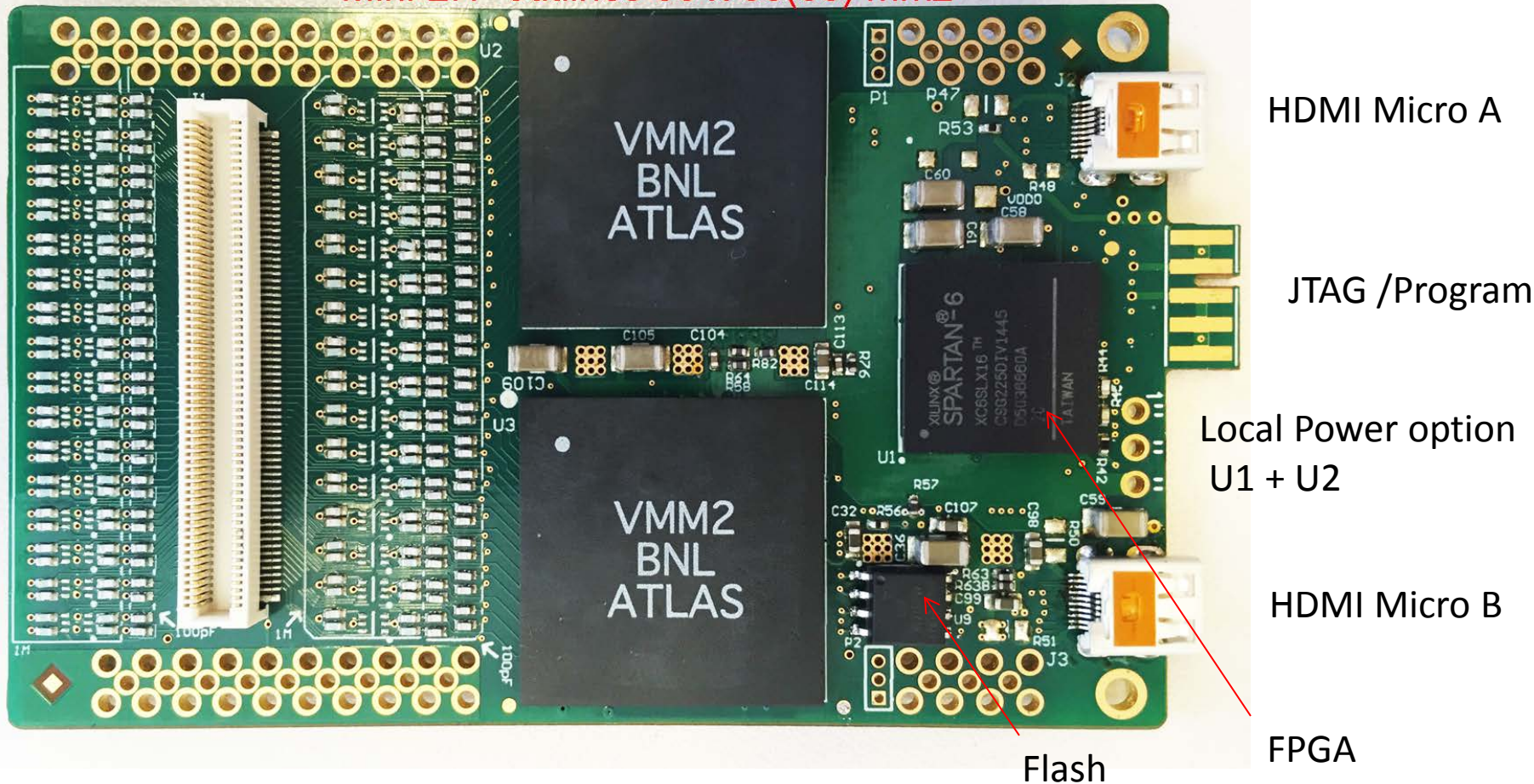


# VMM2 chip: Mini 2.1 (digital)

photo A. Rusu 5 Mai 2015

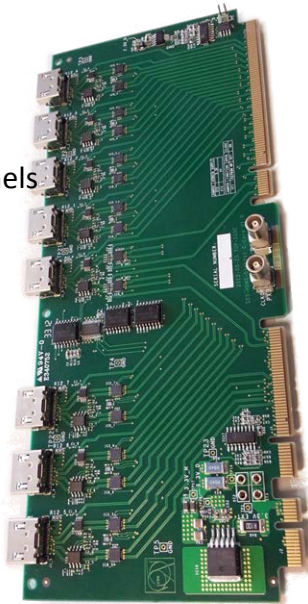
Limited edition for VMM developers only

Mini-2.1 outlines 50 x 80(85) mm<sup>2</sup>



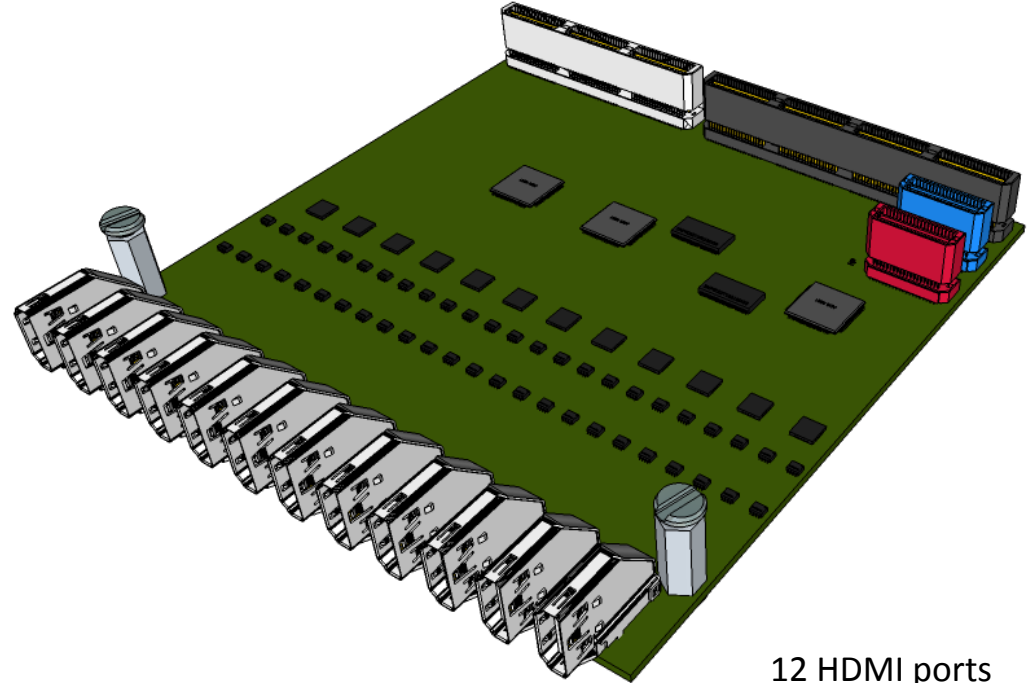
# VMM: D-Cards instead of ADC cards

D-Card Classic



8 HDMI ports  
1024 VMM channels

D-Card ATCA ( in prep. by EicSys)



12 HDMI ports  
1536 VMM channels

Mini-2 requires more than 1.2 A per HDMI port:  
D-Card 1.0 only good for max 3 hybrids  
D-Card 2.0 to be equipped with high power buck converters