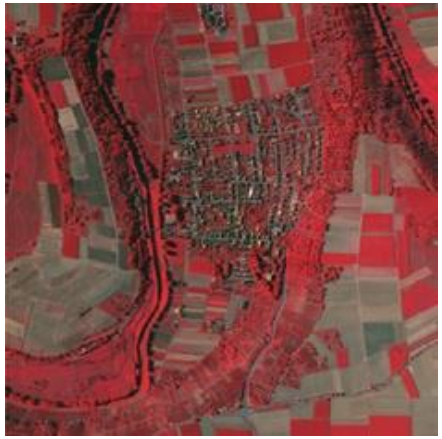

Hexagon Geospatial Solutions Division (GSD)

Z/I DMC II High Resolution Aerial Camera Special Applications

Klaus Neumann **Product Manager Sensor Systems**

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DMC II Camera System

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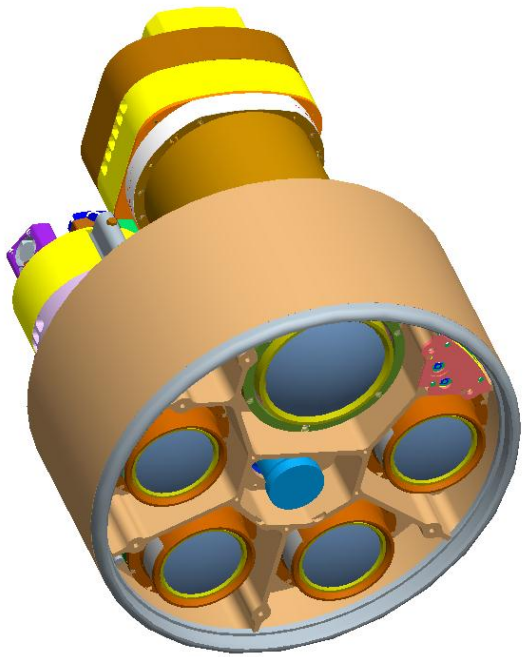
DMC II Camera Design



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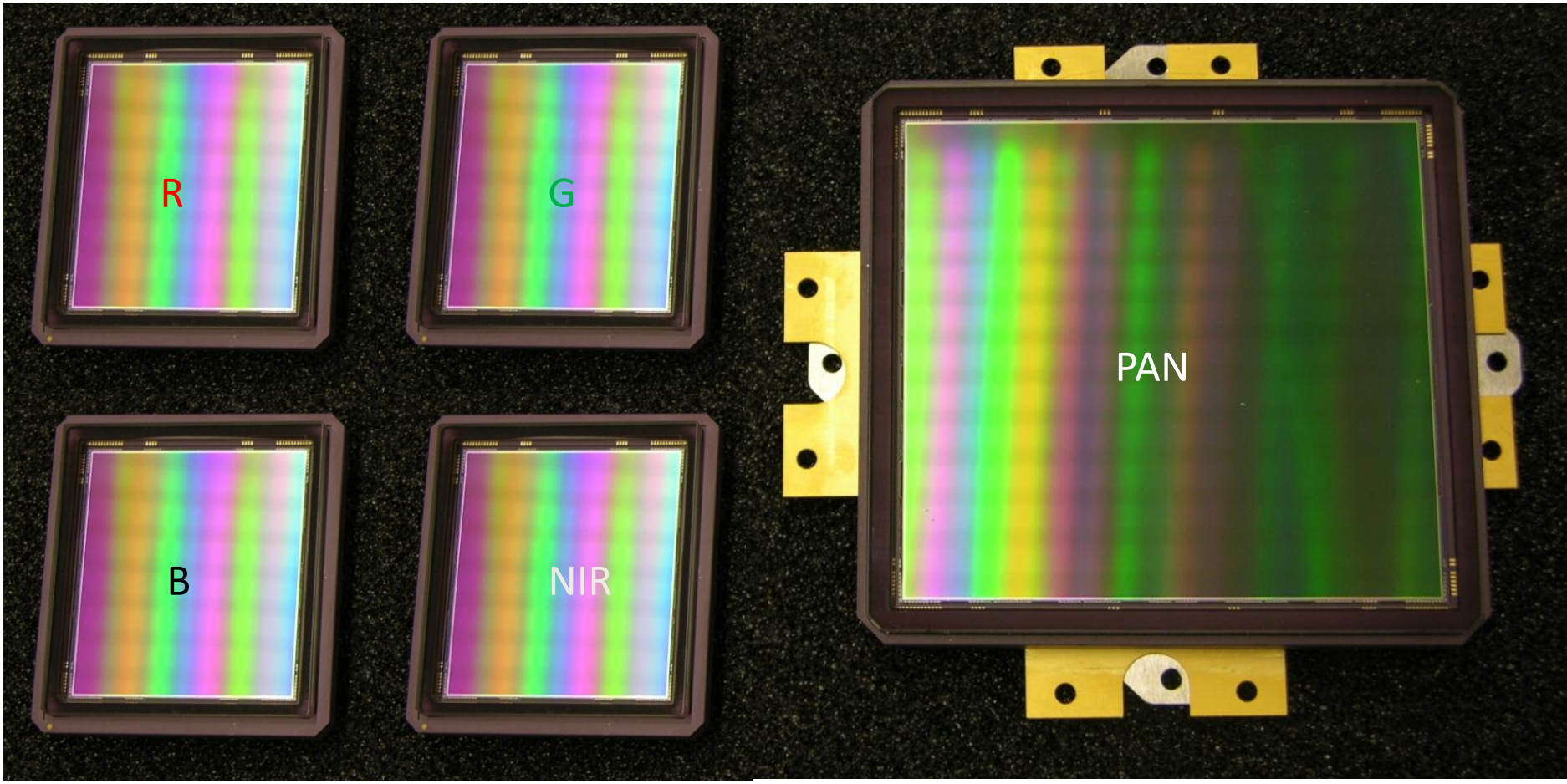
DMC II Sensor Design



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DMC II Sensor Design

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DMC II Special Application

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DMC II Special Application

Open Skies requirements

- Highest resolution (smallest GSD) limited to 30 cm
- Two different flying heights required
- Large swath width
- Multi spectral, RGB and NIR
- Specific radiometric response
- Real time viewing capability

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Open Skies Russia

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DMC II Special Application

Open Skies Russia

- 3 x Z/I DMC II 140 camera systems
- 131,7° field of view in total
- 17,1 km swath width
- 3844 m (12600ft) flying height 1
- 1875 m (6150ft) flying height 2
- Multi spectral, RBG and NIR
- Real time viewer

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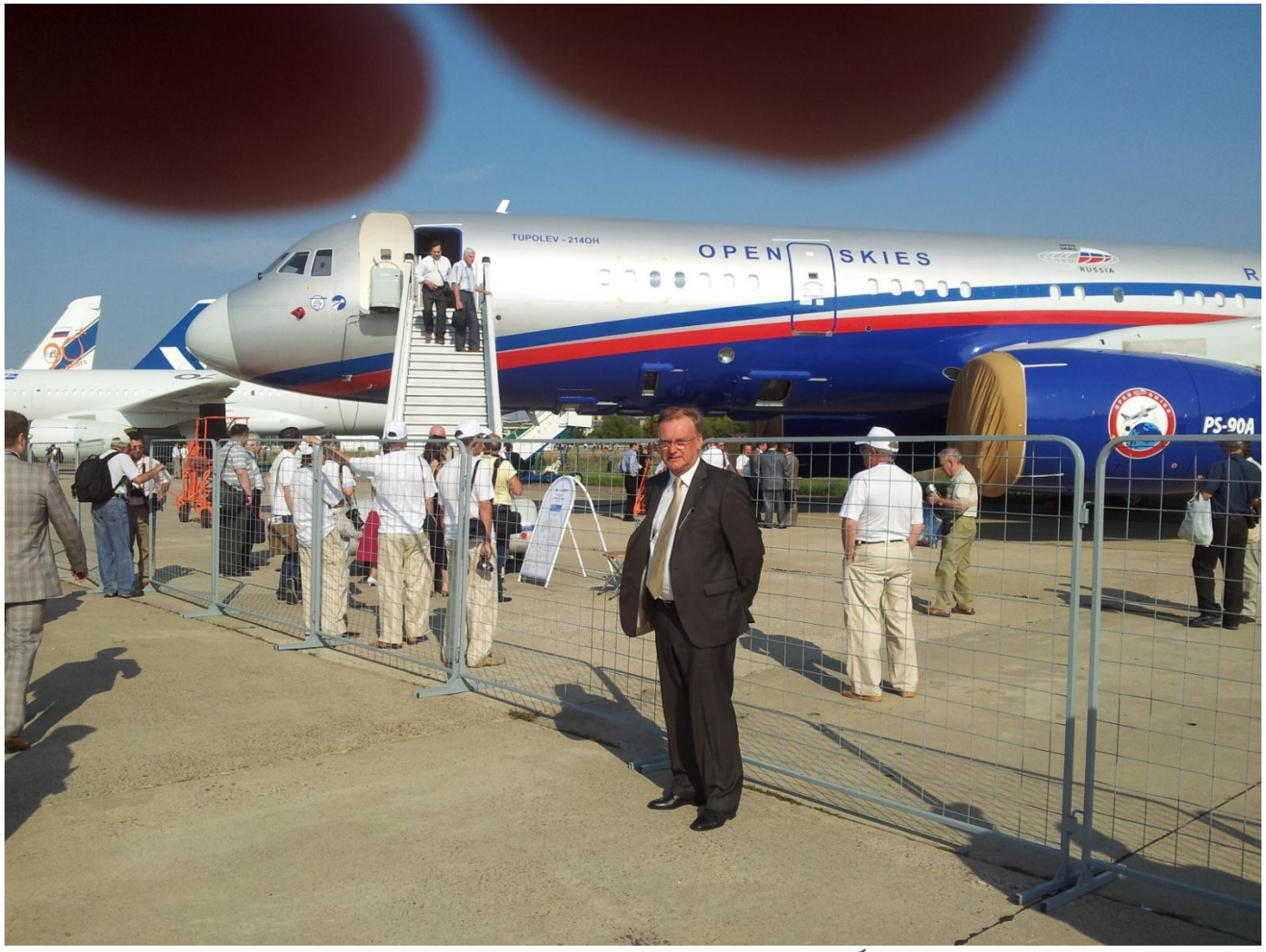
Open Skies Russia



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Open Skies Russia

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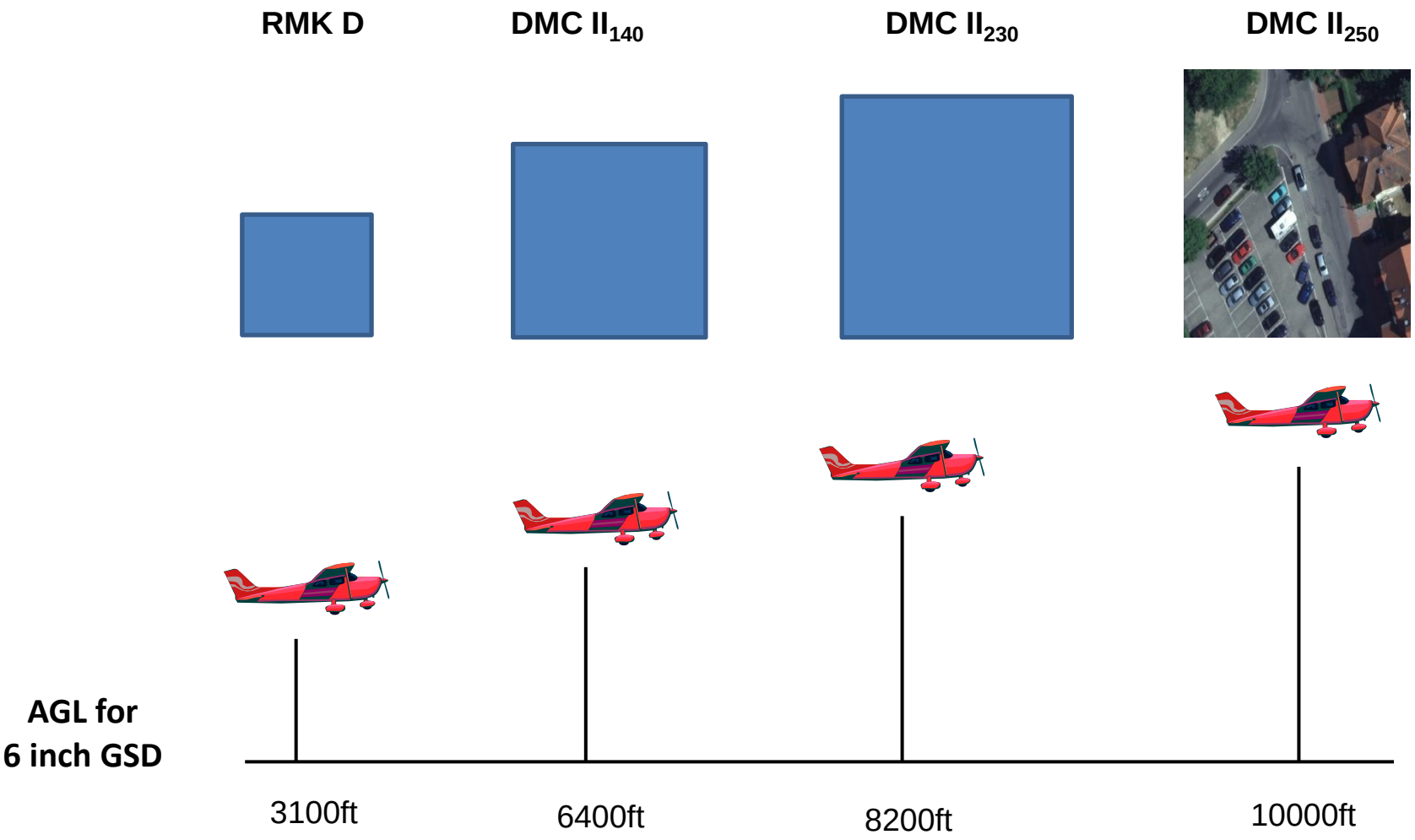
DMC II Special Application

Mission control including real time viewing feature

DMC II Footprint & AGL



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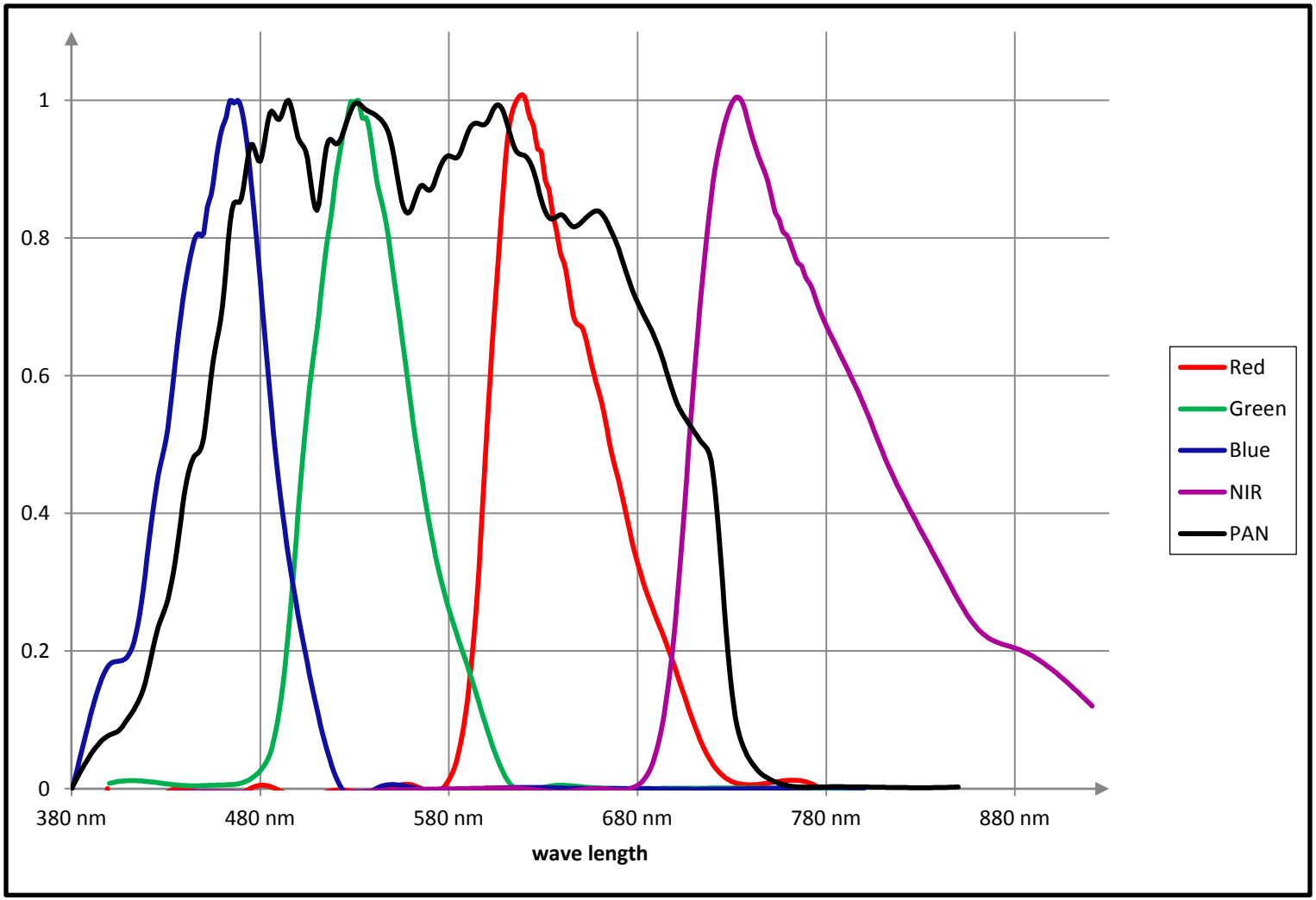
DMC II Sensor Design



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Z/I DMC II Camera Family

DMC II 140
A Product of Z/I Imaging

- Multi spectral sensor, RGB and IR
- 2:1 pan-sharpened color resolution
- FMC forward motion compensation
- 2,2 second frame rate
- 92 mm focal length
- B/H ratio of 0.36 @ 60% overlap
- 4x42 MPixel, 7.2 um MS CCD
- 1x140 MPixel, 7.2um PAN CCD
- CCD Size: 12,096 x 11,200
- 15cm GSD @ 6288 ft flying height
- installed system weight 151kg

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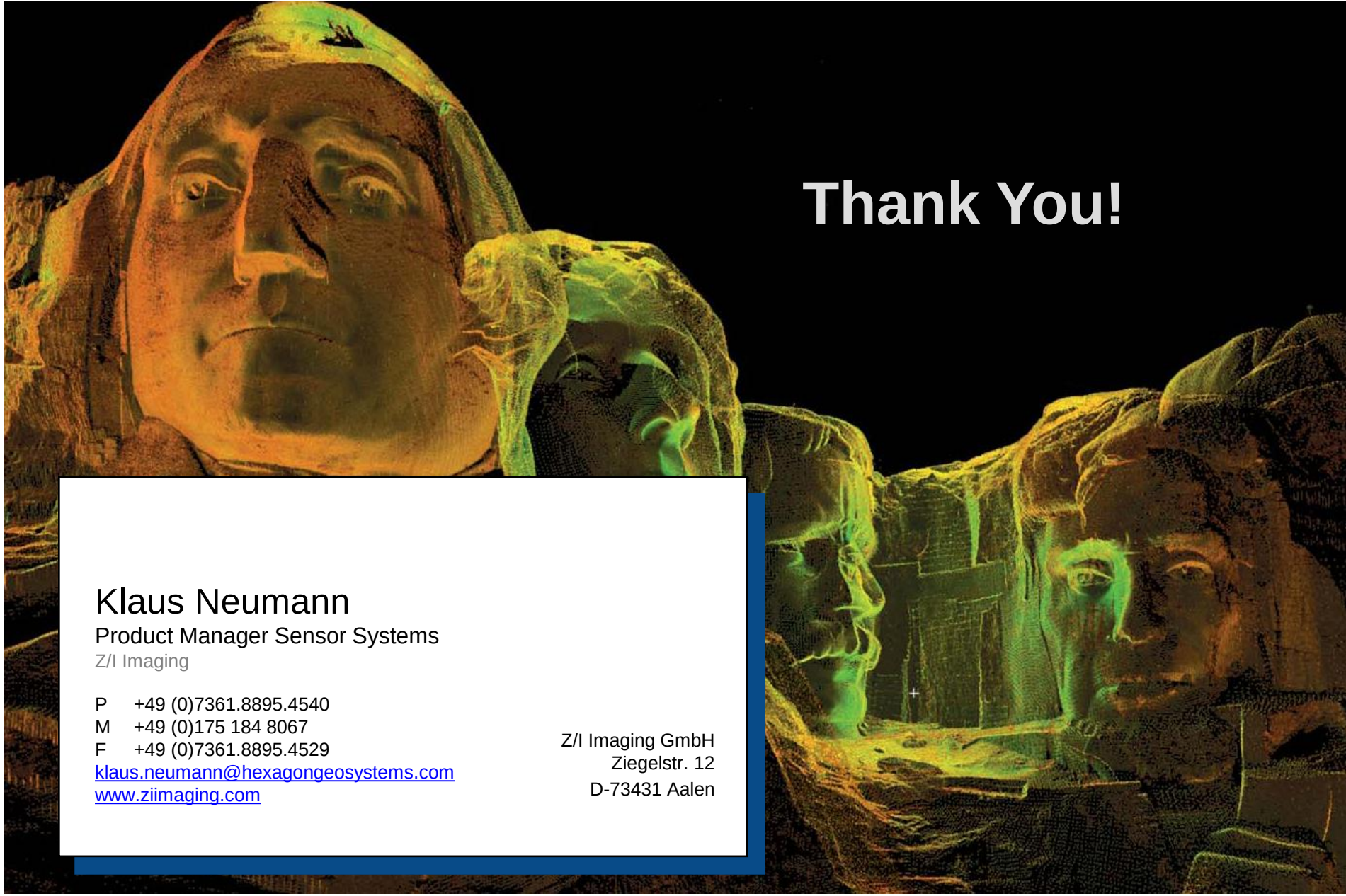
DMC II Camera Family

Cameras Technical Specs Overview

Camera Type	DMC	DMC II 140	DMC II 230	DMC II 250
Ground Coverage in cross direction	13824	12096	15552	16768
Ground Coverage in flight direction	7640	11200	14144	14016
Height Accuracy	1,0 x GSD	0,7 x GSD	0,7 x GSD	0,7 x GSD
Field of View in cross direction	69,4°	50,7°	50,7°	45,5°
PAN : Color Resolution	1:4,8	1:2	1:2,6	1:3,2
Max Airspeed @ 5cm GSD and 80% overlap	71 kts	99 kts	120 kts	118 kts
AGL @ 5cm GSD	1640ft	2096 ft	2695 ft	3281 ft
Color Channels	R,G,B,NIR	R,G,B,NIR	R,G,B,NIR	R,G,B,NIR
FMC	TDI	TDI	TDI	TDI
Power consumption typical	250 W	320 W	320 W	320 W
Camera weight	94 kg	67 kg	67 kg	67 kg
Onboard Storage	768 Gbyte	1,5 Tbyte	2.6 Tbyte	2 .6 Tbyte
Onboard Storage Images	2500	2000	2800	2800



Thank You!

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