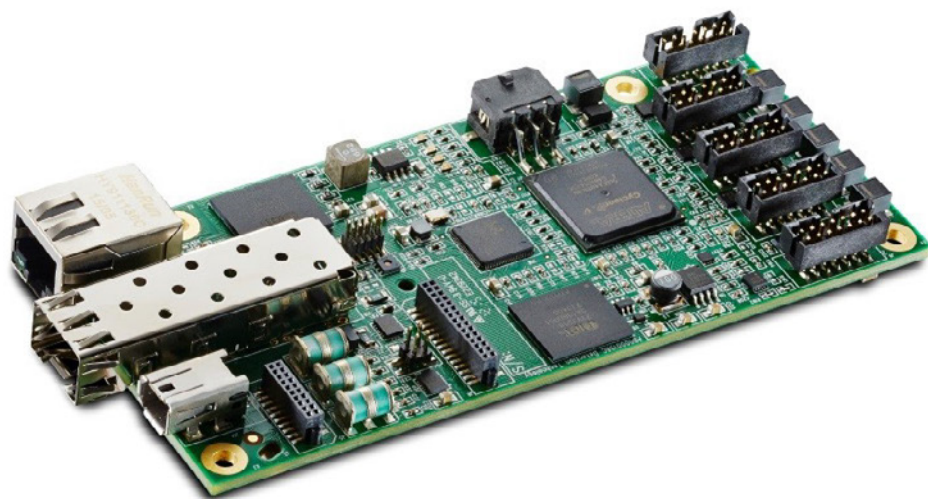


X-GCU

Aurora series control units



- Makes it easy to build high performance and reliable X-ray imaging subsystems
- Provides a connection of up to 80 pieces of 64-channel dual-energy Aurora X-Cards
- High throughput data transfer speed of up to 600 Mbps
- Easy-to-use
- Compact mechanical size
- On-board signal processing functions
- Offset and gain calibrations, constant integration time, pixel binning, line summing and averaging functions
- Diagnostics functions
- Data test patterns, remotely readable temperature sensor, humidity sensor, voltage monitoring and status indicator LEDs

X
AURORA®

X-GCU B / X-GCU XS and **X-GCU GT** are robust control units that operate as data acquisition boards in Aurora series powered detector subsystems. Combining a number of Aurora X-Cards with the series optimized X-GCU makes it easy to build high performance and reliable X-ray imaging subsystems. The GigE compatible control units provide a connection of up to 80 pieces of 64-channel, dual-energy Aurora X-Cards while enabling high data throughput speed.

X-GCU B / X-GCU XS and X-GCU GT have a compact mechanical size, and both solutions come with on-board signal processing and diagnostic functions. Demonstration software, a control library and a sample source code are available to speed up evaluation and software development.

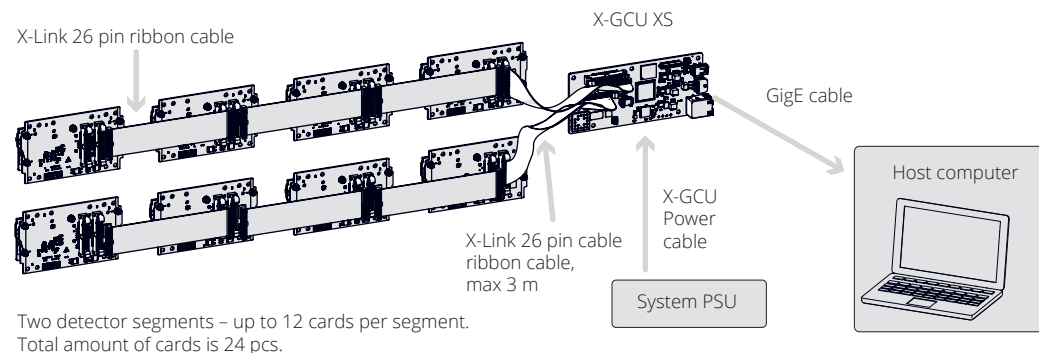
Key features

- Configurable external RS-485 triggers with X-GCU GT
- Remote firmware upgrade
- Gigabit Ethernet interface
- Auto-recovery
- Software development kit available for rapid evaluation and software development
- RoHS compliance

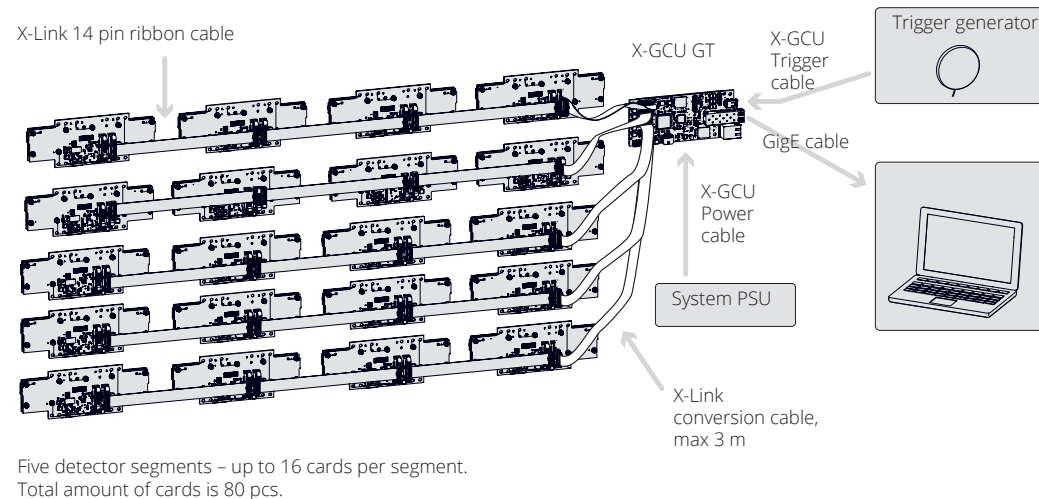
Applications

- Security inspection
- Cargo and vehicle inspection
- Multi-view imaging
- Non-destructive testing
- Food inspection
- Raw material sorting
- Thickness measurement
- Foreign particle detection

X-GCU B and X-GCU XS system typology



X-GCU GT. Grand system typology



Key characteristics

Parameters	X-GCU GT	X-GCU B / X-GCU XS
Product code	3000024722	13013560 / 3000031489
Input voltage	10.8 V–26.4 V DC	
Typical power consumption	4 W	3 W
Number of segment	5	2
Max number of X-Cards per segment	16	12
Max total number of X-Cards	80	24
Max pixel quantity	10240	3072
Max cable length between X-GCU and X-Card	3 m	3 m
Min integration time	100 us	1.27 ms
Max integration time	Up to 25 ms	
System linearity	>99 %	
Supported interface	GigE	
EMC standards of trigger interface	ESD: 8 kV contact, 15 kV air discharge EFT: 2 kV Surge: 6 kV	ESD: 8 kV contact, 15 kV air discharge EFT: 2 kV Surge: 1 kV
Max throughput	600 Mbps	
Voltage sensor	Yes	
Temperature sensor	Yes	
Humidity sensor	Yes	
Mechanical dimensions (with thermal pad)	132 mm (L) x 58 mm (W) x 20.2 mm (H)	X-GCU B: 132 mm (L) x 58 mm (W) x 19.8 mm (H) X-GCU XS: 132 mm (L) x 58 mm (W) x 23.4 mm (H)