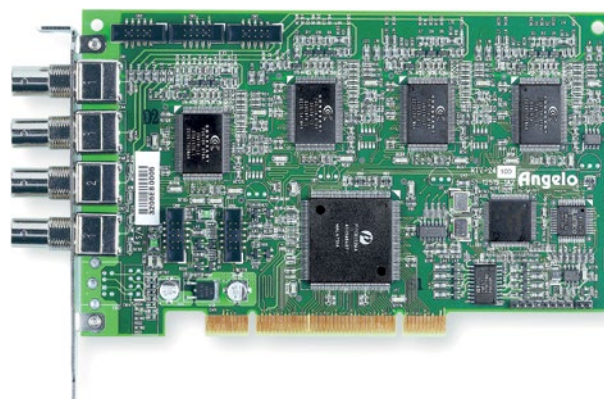# Interface Cards

Video Interfaces

Analog PAL/NTSC VIDEO Camera Support

- Direct connection of analog video cameras to DEWETRON instruments
- Four parallel color PAL/NTSC cameras supported
- PCI and PCI Express version available
- Up to 30 fps (frames per second) per channel

It is very popular to use DEWETRON measurement instruments together with standard low cost analog video cameras. The **FG-VIDEO-4-x** cards are a very nice solutions for connecting such cameras directly to our instruments.

Video interfaces

Model name	Form factor	Input	Output	Streams	Rates	Software required
FG-VIDEO-4-PCI	PCI card	4x PAL/NTSC color video	DirectX into DEWESoft	4 independent streams	Up to 30 fps for each input	DEWESoft-7-PROF
FG-VIDEO-4-PCI-E	PCI Express card					

The FG-VIDEO-4-x frame grabber cards are fully supported in DEWESoft 7 and offer four parallel powerful video interfaces. This way four color PAL/NTSC cameras can be added to the measurement system. Each camera can run at up to 30 frames per second.

PCI-FLEXRAY1

DEWETRON measurement systems are 100 % compatible with the FlexRay standard which is used in many automotive applications. Only the option PCI-FLEXRAY1 and a DEWESoft-plugin have to be added to achieve one FlexRay interface.
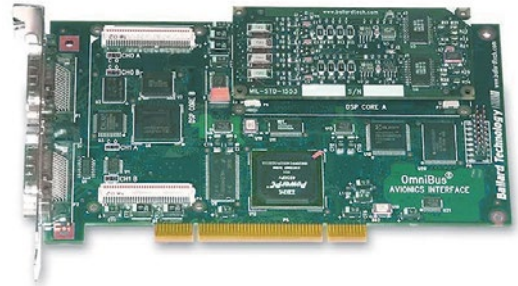

Video interfaces

Model name	Input	Output	Rates	Multi-card support	Form factor	Software required
PCI-FLEXRAY1	1 x FlexRay	Direct into DEWESoft	Max. 20 Mbit/s	Max. 2 cards in one system	PCI card	PLUGIN-FLEXRAY

ARINC-429 and MIL-STD-1553 Interfaces

ARINC-429 is an interface employed on many aircraft, commercial and military.

MIL-STD-1553 has been a military avionics standard serial data bus since the 1970's. Today it is also used in spacecraft for on-board data handling (OBDH) subsystems. Applications for 1553 encompass both military and civilian usage.
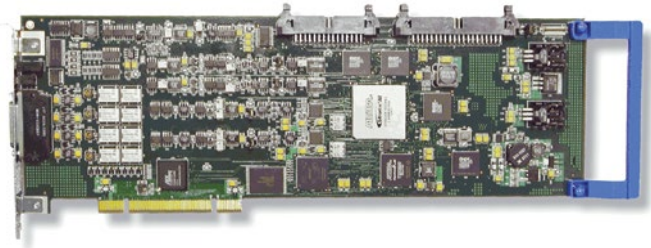
Our PCI interface card can be configured with either two separate ARINC 429 interfaces, or an ARINC 429 and one 1553 interface.

ARINC-429 and MIL-STD-1553 interfaces						
Model name	**ARINC-429 interface**		**MIL-STD-1553 interface**		**Form factor**	**Software required**
	Receive channels	**Transmit channels**	**Input**	**Function**		
PCI-ARINC-4R4T	4	4	-		PCI card	DEWESoft-7-PROF plus PLUGIN-ARINC/1553
PCI-ARINC-8R8T	8	8	-		PCI card	
PCI-ARINC-16R16T	16	16	-		PCI card	
PCI-1553-S	-	-	Single channel	Single function	PCI card	
PCI-1553-D	-	-	Dual channel	Single function	PCI card	
PCI-ARINC-4R4T-1553-S	4	4	Single channel	Single function	PCI card	
PCI-ARINC-4R4T-1553-D	4	4	Dual channel	Single function	PCI card	
PCI-ARINC-4R4T-1553-DM	4	4	Dual channel	Multi function	PCI card	

PCM Interfaces

PCM refers to the pulse code modulation that is used to encode data transmitted from spacecraft or aircraft to the ground. Dewetron has developed a comprehensive interface to a powerful bit-sync/frame sync/decommutator interface card.

The PCI interface hardware can handle PCM data in numerous popular formats, and at rates up to 33 Mbps. The bit sync and frame sync are handled in hardware via the graphical user interface within DEWESoft, whereas the decom is implemented entirely in software. This allows maximum system flexibility, including the ability to handle one or more embedded asynchronous data streams.

PCM interfaces						
Model name	**Input**	**Frame format ID**	**Rates**	**Streams**	**Form factor**	**Software required**
PCI-PCM-01	PCM data stream	Supported	Up to 33 Mbps	Async streams supported	PCI card, fulll length	DEWESoft-7-PROF plus PLUGIN-PCM

FireWire® Interfaces

FireWire® is a very common interface to connect cameras, storage devices or even data acquisition systems to a computer. The main application of Firewire interfaces in DEWETRON systems is to connect single or multiple cameras. It is most popular to use the synchronized DEWE-CAM-01 but standard DV cameras are supported as well.

FireWire® interfaces			
Model name	**Interfaces**	**Standard**	**Connector**
FIREWIRE-1394	2 independent channels	IEEE 1394a	2x FW 6-pin, lockable