

6222 Video Dragon

Grabbing and generation of video data

- grabbing and generation of video data in one device
- test of display and/or camera systems
- modular design, consisting of base board and configurable media interface
- easy adaptation to different serializers/deserialisers
- support of GMSL, FPD Link, APIX and MIPI A-PHY standards for image data
- sideband communication via UART, I²C, SPI or MII depending on Media Interface
- pass through of data streams between the original source and sink*
- simulation of virtual system components
- available as: stand-alone box G CAR 6222 Video Dragon
PCIe card G PCIe 6222 Video Dragon
PXle card G PXle 6222 Video Dragon

* depending on the media interface



Performance

- MPSoC with Quad Core ARM Cortex-A53 and FPGA
- real time operating system
- lowest latencies
- additional digital I/Os

Parameters

video format	RGB, YUV and RAW
digital I/O	2 x digital input, 2 x digital output
options	CAN FD interface, CAN over UART
Host interface G CAR 6222 Video Dragon	RJ45 Gigabit Ethernet und USB 3.0
Host interface G PCIe 6222 Video Dragon G PXle 6222 Video Dragon	4 x PCIe 2.1
temperature range	0–50 °C

Application

- inspection for in-vehicle displays, cameras, intelligent driving domain controllers and cockpit domain controllers
- sideband communication
- supports data stream passthrough; device integration into existing system loops without disruption

Software

- G API for Windows and Linux/Linux RT
 - LabVIEW VIs
 - Dragon Suite* as intuitive user software
- *basic version included free of charge

Available Media interfaces (all available modules on request)

transmission standard	Media interface	
GMSL	MI 6222 MAX9295A_4x Coax	MI 6222 MAX9295A_96A Coax
	MI 6222 MAX9296A_4x Coax	MI 6222 MAX9295A_96A STP
	MI 6222 MAX96714_4x Coax	
	MI 6222 MAX96792_Coax/STP	MI 6222 MAX96793_Coax/STP
FPD-Link	MI 6222 DS90UB940_2x STP	MI 6222 DS90UB940_2x Coax
	MI 6222 DS90UB953_4x Coax	MI 6222 DS90UB954_4x Coax
	MI 6222 DS90UB947_948 STP	
	MI 6222 DS90UB9702_4x Coax	
APIX	MI 6222 INAP562T_562R STP	
MIPI A-PHY	MI 6222 VA7044_4x Coax	

Overview Connectors excerpt

Samtec ER18-019	
FAKRA mini	
HSD	
FAKRA	
H-MTD	



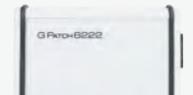
Modularity

- high flexibility regarding individual configuration
- support of all current serializers/deserializers
- sideband communication
- configurable media interfaces

Overview Cables excerpt

			
Video cable Coax	Connection cable between Video Dragon and G Patch	Connection cable CAN and digital I/O	STP/HSD cable

Overview G Patch excerpt

G Patch 6222 Coax			
G Patch 6222 H-MTD			
G Patch 6222 STP			

G Patch

- adaption of the DUT
- power supply of the DUT
- special functions

User software



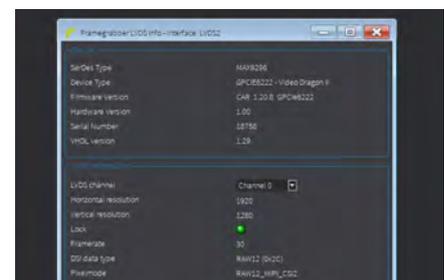
Dragon Suite software



Overview of the interfaces



Dialogue window Frame Grabber



LVDS status display

Dragon Suite Basic vs. Dragon Suite Advanced

Category	Sub category	basic	advanced
configuration generator/ grabber	basic configuration	X	X
	Media Interface GPIO configuration		X
	I ² C slave simulation	X	X
grabber dialogue	basic functions	X	X
	advanced colour format conversion (Bayer, Grey 8 and 12 Bit, YUYV-UYYV 8+10 Bit)		X
	RAW recording		X
	interface for integrating your own libraries for touch simulation	X	X
	white balance of camera image data		X
	recording video from Ethernet-based data sources		X
generator dialogue	simultaneous generation on several channels		X
	advanced pattern generator		X
sideband dialogue	video output or mirrored desktop	X	X
sideband dialogue	UART, I ² C, SPI (MII only in Advanced available)	X	X
monitor functions	CAN monitor and sideband (SPI, I ² C, UART, MII)		X
support of the following interfaces	read/write digital I/Os	X	X
	trigger settings	X	X
	Sequence Interface, Script Interface, CAN Interface		X