

## Phantom\_S990\_RegisterMap\_phfw137.xlsx

1 of 1

Name	Description	Type	Parent Name	Parent Type	Addr	Length	Access Mode	Sign	Endian	LSB	MSB	Enum Names:Values
DeviceVendorName	Category for Device information and control.	StringReg	DeviceControl	Category	0x2000	32	RO					
DeviceModelName	Category for Device information and control.	StringReg	DeviceControl	Category	0x2020	32	RO					
DeviceManufacturerInfo	Category for Device information and control.	StringReg	DeviceControl	Category	0x2040	48	RO					
DevicePhfwVersionReg	Version of the firmware in the device.	IntReg	DevicePhfwVersion	Integer	0x6174	4	RO	Unsigned	BigEndian			
DeviceSerialNumberReg	Serial Number of device.	IntReg	DeviceSerialNumber	Integer	0x6158	4	RO	Unsigned	BigEndian			
DeviceResetReg	Resets the device to its power up state.	IntReg	DeviceReset	Command	0x4000	4	WO	Unsigned	BigEndian			
WidthMaxReg	Maximum width (in pixels) of the image. The dimension is calculated after horizontal binning, decimation or any other function changing the horizontal dimension of the image.	MaskedIntReg	WidthMax	Integer	0x6010	4	RO	Unsigned	BigEndian	31	16	
WidthReg	This feature represents the actual image width expelled by the camera (in pixels).	IntReg	Width	Integer	0x6000	4	RW	Unsigned	BigEndian			
HeightMaxReg	Maximum height (in pixels) of the image. This dimension is calculated after vertical binning, decimation or any other function changing the vertical dimension of the image.	MaskedIntReg	HeightMax	Integer	0x6010	4	RO	Unsigned	BigEndian	15	0	
HeightReg	This feature represents the actual image height expelled by the camera (in pixels).	IntReg	Height	Integer	0x6004	4	RW	Unsigned	BigEndian			
PixelFormatReg	This feature indicates the format of the pixel to use during the acquisition.	IntReg	PixelFormat	Enumeration	0x6008	4	RW	Unsigned	BigEndian			Mono8:0x01080001   Mono12:0x010C0047   Mono16:0x01100007   BayerGB8:0x0108000A   BayerGB12:0x010C0055
ImageSourceReg	This feature controls the image source.	IntReg	ImageSource	Enumeration	0x6120	4	RW	Unsigned	BigEndian			imgsrc0:0   imgsrc1:1   imgsrc2:2   imgsrc3:3   imgsrc4:4   imgsrc5:5   imgsrc6:6
AcquisitionModeReg	This feature controls the acquisition mode of the device.	IntReg	AcquisitionMode	Enumeration	0x6018	4	RW	Unsigned	BigEndian			Continuous:0
AcquisitionStartReg	This feature starts the Acquisition of the device.	MaskedIntReg	AcquisitionStart	Command	0x601C	4	RW	Unsigned	BigEndian	31	24	
AcquisitionStopReg	This feature stops the Acquisition of the device at the end of the current Frame.	MaskedIntReg	AcquisitionStop	Command	0x601C	4	RW	Unsigned	BigEndian	31	24	
pFrameRateReg	Frame rate in Hz.	FloatReg	AcquisitionFrameRate	Float	0x60C0	4	RW	Unsigned	BigEndian			
pFrameRateRegMax	Frame rate in Hz.	FloatReg	AcquisitionFrameRate	Float	0x60C4	4	RO		BigEndian			
ExposureTimeReg	Sets the Exposure time (in microseconds). This controls the duration where the photosensitive cells are exposed to light.	FloatReg	ExposureTime	Float	0x60C8	4	RW		BigEndian			
pExposureTimeRegMax	Sets the Exposure time (in microseconds). This controls the duration where the photosensitive cells are exposed to light.	FloatReg	ExposureTime	Float	0x60CC	4	RO		BigEndian			
ShutterModeReg	Select Global or Rolling shutter mode.	IntReg	AENotAvailable	IntSwissKnife	0x617C	4	RW	Unsigned	BigEndian			Rolling:0   Global:1   BrightField:2
FeaturesReg		IntReg	BFNotAvailable	IntSwissKnife	0x60EC	4	RO	Unsigned	BigEndian			
TriggerModeReg	Select camera sync mode.	MaskedIntReg	io4NotAvailable	IntSwissKnife	0x6128	4	RW	Unsigned	BigEndian	31	24	TriggerModeOff:0   TriggerModeOn:1
TriggerSelectorReg	Selects the type of trigger to configure.	MaskedIntReg	TriggerSelector	Enumeration	0x6128	4	RW	Unsigned	BigEndian	23	16	ExposureStart:0   ExposureActive:1
TriggerSourceReg	Specifies the internal signal or physical input Line to use as the trigger source. The selected trigger must have its TriggerMode set to On.	MaskedIntReg	io4NotAvailable	IntSwissKnife	0x6128	4	RW	Unsigned	BigEndian	15	8	GPIO0:0   GPIO1:1   GPIO2:2   GPIO3:3   GPIO4:4   SWTRIGGER:5
CTRLReg_fan	Turn camera fan on/off.	MaskedIntReg	FanCtrl	Enumeration	0x6180	4	RW	Unsigned	BigEndian	23	16	FanOff:0   FanOn:1
CTRLReg_led	Turn CXP LEDs on/off.	MaskedIntReg	LEDCtrl	Enumeration	0x6180	4	RW	Unsigned	BigEndian	15	8	LEDOff:0   LEDOn:1
CTRLReg_ts	Enable or disable time stamp.	MaskedIntReg	TimeStamp	Enumeration	0x6180	4	RW	Unsigned	BigEndian	31	24	TSoFF:0   TSON:1
TimeStampSetReg	Set camera time by entering current time in seconds since January 1st, 1970.	IntReg	TimeStampSet	Integer	0x6188	4	WO	Unsigned	BigEndian			
DigitalI00Reg	Selects the physical line (or pin) of the external device connector or the virtual line of the Transport Layer to configure.	MaskedIntReg	GPIO0	Enumeration	0x6198	4	RW	Unsigned	BigEndian	31	24	eventin0:0   strobe0:16   triggerout0:17   ready0:18   tcout0:22   memgate0:3   swtrigger0:21
DigitalI01Reg	Selects the physical line (or pin) of the external device connector or the virtual line of the Transport Layer to configure.	MaskedIntReg	GPIO1	Enumeration	0x6198	4	RW	Unsigned	BigEndian	23	16	eventin1:0   strobe1:16   triggerout1:17   ready1:18   tcout1:22   memgate1:3   swtrigger1:21
DigitalI02Reg	Selects the physical line (or pin) of the external device connector or the virtual line of the Transport Layer to configure.	MaskedIntReg	GPIO2	Enumeration	0x6198	4	RW	Unsigned	BigEndian	15	8	eventin2:0   strobe2:16   triggerout2:17   ready2:18   tcout2:22   memgate2:3   swtrigger2:21
DigitalI03Reg	Selects the physical line (or pin) of the external device connector or the virtual line of the Transport Layer to configure.	MaskedIntReg	GPIO3	Enumeration	0x6198	4	RW	Unsigned	BigEndian	7	0	eventin3:0   strobe3:16   triggerout3:17   ready3:18   tcout3:22   memgate3:3   swtrigger3:21
DigitalI04Reg	Selects the physical line (or pin) of the external device connector or the virtual line of the Transport Layer to configure.	MaskedIntReg	GPIO4	Enumeration	0x619C	4	RW	Unsigned	BigEndian	31	24	eventin4:0   memgate4:3
DigitalI05Reg	Selects the physical line (or pin) of the external device connector or the virtual line of the Transport Layer to configure.	MaskedIntReg	GPIO5	Enumeration	0x619C	4	RW	Unsigned	BigEndian	23	16	strobe5:16   ready5:18   tcout5:22   swtrigger5:21
StandardReg	Bootstrap register Standard.	IntReg	Standard	Integer	0x0000	4	RO	Unsigned	BigEndian			
RevisionReg	Bootstrap register Revision.	IntReg	Revision	Integer	0x0004	4	RO	Unsigned	BigEndian			
XmlManifestSizeReg	Bootstrap register XmlManifestSize.	IntReg	XmlManifestSize	Integer	0x0008	4	RO	Unsigned	BigEndian			
XmlManifestSelectorReg	Bootstrap register XmlManifestSelector.	IntReg	XmlManifestSelector	Integer	0x000C	4	RW	Unsigned	BigEndian			
XmlVersionReg	Bootstrap register XmlVersion.	IntReg	XmlVersion	Integer	0x0010	4	RO	Unsigned	BigEndian			
XmlSchemaVersionReg	Bootstrap register XmlSchemaVersion.	IntReg	XmlSchemaVersion	Integer	0x0014	4	RO	Unsigned	BigEndian			
XmlUrlAddressReg	Bootstrap register XmlUrlAddress.	IntReg	XmlUrlAddress	Integer	0x0018	4	RO	Unsigned	BigEndian			
lidcPointerReg	Bootstrap register lidcPointer.	IntReg	lidcPointer	Integer	0x001C	4	RO	Unsigned	BigEndian			
LinkResetReg	Bootstrap register LinkReset.	IntReg	LinkReset	Integer	0x4000	4	WO	Unsigned	BigEndian			
DeviceLinkIDReg	Bootstrap register DeviceLinkID.	IntReg	DeviceLinkID	Integer	0x4004	4	RO	Unsigned	BigEndian			
MasterHostLinkIDReg	Bootstrap register MasterHostLinkID.	IntReg	MasterHostLinkID	Integer	0x4008	4	RW	Unsigned	BigEndian			
ControlPacketDataSizeReg	Bootstrap register ControlPacketDataSize.	IntReg	ControlPacketDataSize	Integer	0x400C	4	RO	Unsigned	BigEndian			
StreamPacketDataSizeReg	Bootstrap register StreamPacketDataSize.	IntReg	StreamPacketDataSize	Integer	0x4010	4	RW	Unsigned	BigEndian			
LinkConfigReg	Bootstrap register LinkConfig.	IntReg	LinkConfig	Enumeration	0x4014	4	RW	Unsigned	BigEndian			CXP_6:0x00040048
LinkNumberReg	Bootstrap register Banks.	IntReg	Banks	Enumeration	0x6184	4	RW	Unsigned	BigEndian			Banks_ABCD:3   Banks_AB:1   Banks_A:0
UsermemWriteMaskReg	Sets the write mask to disable to write access to User memory, whose address is greater than 0x0006000. Setting Usermem Write Mask register will only disable writing to user memory for bank whose corresponding bit in the mask set to one, bit 0 is for bank A, bit 1 bank B, etc.	IntReg	UsermemWriteMask	Integer	0x618C	4	RW	Unsigned	BigEndian			
LinkConfigDefaultReg	Bootstrap register LinkConfigDefault.	IntReg	LinkConfigDefault	Integer	0x4018	4	RO	Unsigned	BigEndian			
TestModeReg	Bootstrap register TestMode.	IntReg	TestMode	Enumeration	0x401C	4	RW	Unsigned	BigEndian			TestModeOff:0   TestModeOn:1
ComplianceTestReg	Bootstrap Compliance Test.	IntReg	ComplianceTest	Enumeration	0x4038	4	RW	Unsigned	BigEndian			ComplianceTestOff:0   ComplianceTest1G:0x00010028   ComplianceTest2G:0x00010030   ComplianceTest3G:0x00010038   ComplianceTest5G:0x00010040   ComplianceTest6G:0x00010048
TestErrorCountSelectorReg	Bootstrap register TestErrorCountSelector.	IntReg	TestErrorCountSelector	Integer	0x4020	4	RW	Unsigned	BigEndian			
TestErrorCountReg	Bootstrap register TestErrorCount.	IntReg	TestErrorCount	Integer	0x4024	4	RW	Unsigned	BigEndian			
TestPacketCountTxReg	Bootstrap register TestPacketCountTx.	IntReg	TestPacketCountTx	Integer	0x4028	8	RW	Unsigned	BigEndian			
TestPacketCountRxReg	Bootstrap register TestPacketCountRx.	IntReg	TestPacketCountRx	Integer	0x4030	8	RW	Unsigned	BigEndian			
TapGeometryReg	TapGeometry.	IntReg	TapGeometry	Enumeration	0x600C	4	RW	Unsigned	BigEndian			X1_1Y:0   X1_1Y2:1   X1_2Y:2
Image1StreamIDReg	Image1StreamID.	IntReg	Image1StreamID	Integer	0x60D8	4	RO	Unsigned	BigEndian			