English

FULL HD

FULL HD Color MOS
Camera Module

VPC-HD20

Serial Command Manual

Revision History

Version	Update	Description
Ver 1.00	13/02/01	Newly Issued

Table of Contents

Introduction

This manual provides Description on serial port command specifications of Pacific designed HD camera module, VPC-HD20

1. Serial Command Overview

VPC-HD20 supports alterations of various camera settings by sending external commands to the camera. Serial command is an interface that enables transmission of such commands with alphanumerical characters.

2 Communication Specifications

2.1 Communication Parameters

The settings of the host terminal software are as follows.

Table 2 VPC-HD20 Communication Parameter

Parameter	Setting
Baud rate	9600
Bit length	8bit
Stop bit	1bit
Parity bit	N/A
Flow control	N/A

3. Serial Commands

Serial commands recognize commands taking letters from the first input letter to the linefeed cord (CR) as one command.

3.1 How to input commands

ALL commands shall be input in capital letters.

With S in front of the command makes the command as a Set command. With G in front of the command makes the command as a Get command.

However, just input "SAVE" since no letter is needed for the save command.

3.1.1 Command setting example

3.1.1.1 Set Command

Input "S(capital letter)+Command+Space+Parameter".

Ex) To set video format

SVF 0

If there are several parameters, use space between each parameter.

Ex) To set shutter limit

SSL 1 6

3.1.1.2 Get Command

Input "G(capital letter)+Command".

Ex) To get video format

GVF

3.2 List of Commands

3.2.1 Video Format

Command	Setting Value	Name of Command
VF	0: 1920x1080p @60fps(levelA) 1: 1920x1080p @60fps(levelB) 2: 1920x1080p @59.94fps(levelA) 3: 1920x1080p @59.94fps(levelB) 4: 1920x1080p @50fps(levelA) 5: 1920x1080p @50fps(levelB) 6: 1920x1080i @60fps 7: 1920x1080i @59.94fps 8: 1920x1080i @50fps 9: 1280x720p @60fps 10: 1280x720p @59.94fps 11: 1280x720p @50fps	Video Fomat

3.2.2 AE commands

Command	Setting Value	Name of Command	Remarks
GM	0: Manual 1: Auto	GainMode	
GV	0 ~ 30(dB)	GainValue	Valid when Gain Mode is at manual.
MG	Same as GainValue	MaxGain	
SM	0: Manual 1: Auto	ShutterMode	
SV	0: Open 1: 1/60 2: 1/100 3: 1/120 4: 1/250 5: 1/500 6: 1/1000 7: 1/2000 8: 1/4000 9: 1/8000	ShutterValue	Valid when Gain Mode is at manual.
SL	Same as ShutterValue	ShutterLimit	The 1st Param = Max The 2nd Param = Min Ex) As SL 1 6, space shall be used between each parameter.

I	0: Open	Iris	
	1: Auto		
AM	0: Averaged	AeMode	
	1: Center-weighted		
	2: Spot		
	3: Back Light		
SB	X Value: 0 ~ 15 (0 comes to the left)	SpotBlock	The 1st Param = X value
	Y Value: 0 ~ 15 (0 comes to the top)		The 2nd Param = Yvalue
			Ex) As SB 0 15, space shall be used
			between each parameter.
AL	0 ~ 100(%)	AeLevel	
AS	0 ~ 100	AeSpeed	

3.2.3 WB commands

Command	Setting Value	Name of Command
WM	0: Auto	WbMode
	1: Auto (Outdoor)	
	2: DayLight	
	3: Cloudy	
	4: Shade	
	5: Tungsten	
	6: Flw (Fluorescent White)	
	7: Fln (Fluorescent Daytime white)	
	8: Fld (Fluorescent Daylight color)	
	9: Auto (test)	
	10: OnePush	
	11: Manual	
	12: Preset1	
	13: Preset2	
	14: Preset3	
	15: Preset4	
	16: Preset5	
P	1: Setting for Preset1	Preset
	2: Setting for Preset2	
	3: Setting for Preset3	
	4: Setting for Preset4	
	5: Setting for Preset5	

RG	0 ~ 800	Rgain
BG	0 ~ 800	BGain
OPT	1: TriggerStart (Valid when WM is OnePush)	OnePushTrigger

3.2.4 Commands for picture quality adjustment

Command	Setting Value	Name of Command
EL	0: Off 1: 01 2: 02 3: 03 4: 04 5: 05	EdgeLevel
CS	0 ~ 200	ColorSaturation
CBR	00 ~ 200	ColorBalanceRB
CBM	00 ~ 200	ColorBalanceMG
NR	0: ON 1: OFF	NoiseReduction
GT	0: Gamma Table 1 1: Gamma Table 2 2: Gamma Table 3 3: Gamma Table 4 4: Gamma Table 5	GammaTable
AG	0: OFF 1: Gamma1 2: Gamma2	Auto Gamma Compensation
PM	0: OFF 1: ON	PedsdtalMode
PL	00 ~ 127	PedsdtalLevel

3.2.5 Other commands

Command	Setting Value	Name of Command
SAVE	Nothing	
VI	1: HD Camera 2: FPGA	Only with VersionInfomation. Get, letter string such as 0.1 will be responded back.