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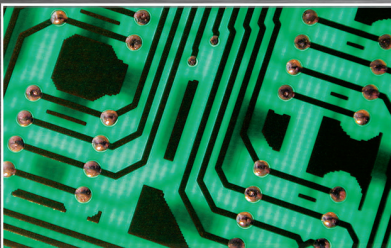
IK-TF SERIES

IK-TF5P2 / IK-TF7P2

High Resolution 3CCD Progressive Scan

IK-TF5P2

IK-TF7P2



Features

- New and improved design
- 3CCD Progressive Scan
- Pixel Resolution / Frame Rate
 - ▶ 659 x 494 @ 59.94 fps (IK-TF5P2)
 - ▶ 1024 x 768 @ 29.18 fps (IK-TF7P2)
- Compact one-piece configuration
- Digital Output – Camera Link®
- Electronic Shutter – Manual or Auto
- Electronic noise reduction
- Partial Scanning to increase frame rate
 - ▶ Up to 250 fps
- White Balance – Manual or Auto
- Dual power input – PoCL® or 12VDC
- C-Mount lens mount
- On-screen and RS-232 setup
- Economically Priced

Applications

- Machine Vision
- Process control
- Inspection
- Factory Automation

One-Piece, 3CCD, Progressive Scan Color Area Scan Camera

Our IK-TF5P2 and IK-TF7P2 provide accurate colors and high resolution of fast moving objects for a variety of process control, inspection, and machine vision applications. New and improved designs expand digital processing capabilities including electronic noise reduction, auto mode electronic shutter, partial scan frame rates up to 250fps, Power over Camera Link®, and reduced power requirements. We offer two enhanced models to meet your resolution and budget requirements.

TOSHIBA
Leading Innovation >>>

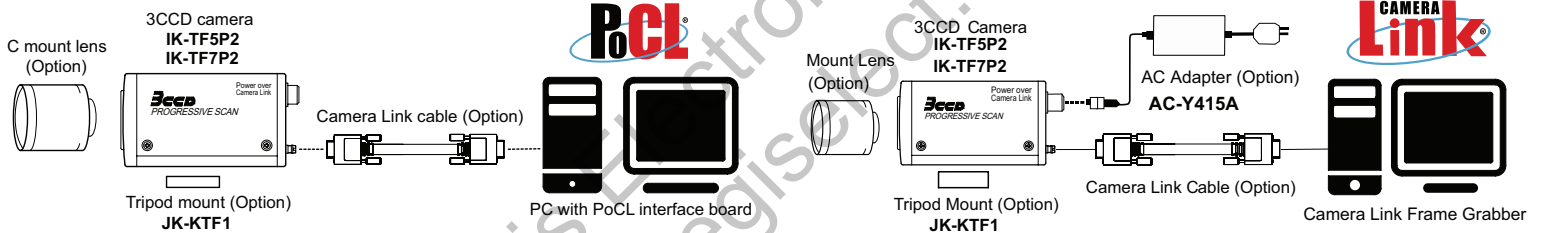
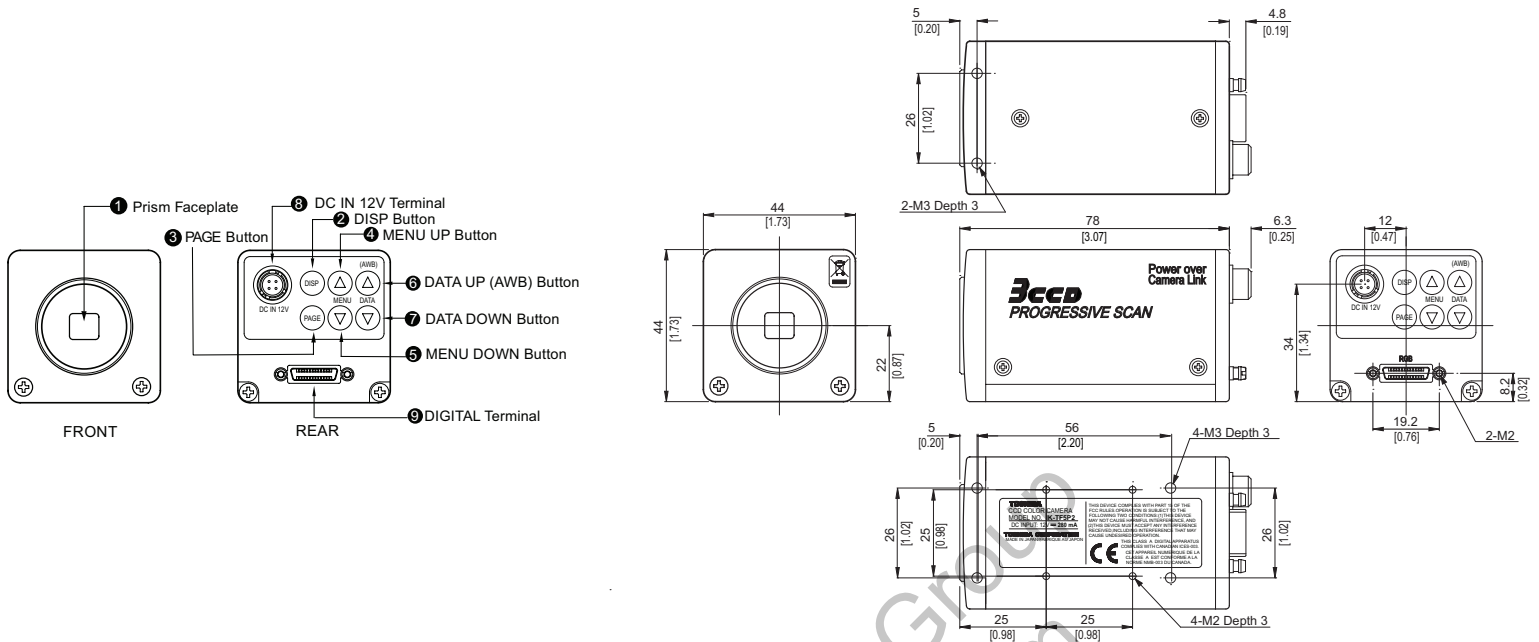
IK-TF5P2 IK-TF7P2

High Resolution 3CCD Color Cameras

SPECIFICATIONS	IK-TF5P2	IK-TF7P2
Scanning System	Progressive	
Image Sensor	3 x 1/3" CCD, RGB prism	
Effective Pixels	VGA (659 x 494)	XGA (1024 x 768)
Output Resolution	H 659 x V 494	H 1034 x V 779
Pixel size	7.4µm x 7.4µm	4.65µm x 4.65µm
Sensing Area H V	4.9 x 3.7 mm	4.8 x 3.6 mm
Frame Rate	59.94fps	29.18 fps
Partial Scanning	250fps (100 lines) 199fps (134 lines) 174fps (158 lines) 126fps (230 lines) 121fps (240 lines) 93fps (324 lines) Off (59.94) (494 lines)	90fps (175 lines) 80fps (211 lines) 70fps (259 lines) 60fps (322 lines) 50fps (412 lines) 42fps (512 lines) 40fps (542 lines) Off (30) (768 lines)
Binning	Off, On, Ext On	None
Pixel Clock Frequency	24.5454 MHz	29.5 MHz
Sync Signal Frequency	H 31.469 kHz V 59.94 kHz	H 23.229 kHz V 29.18 kHz
Horizontal Resolution	480 TV Lines	760 TV Lines
Output Signal	8 bit Digital RGB Camera Link®	
Sync Signal Output	FVAL/LVAL/DVAL (positive polarity) Pixel Clock	
External Sync Input	HD: CC3 VD: CC4 (LVDS input) Neg polarity	
External Trigger Input	CC1 (LVDS input) More than 2µs pulse width	
Partial Scanning Control	CC2 (LVDS input)	
Gamma Correction	On/ Off	
S/N Ratio	62 dB Standard (G)	56 dB
White Balance	AWB, Manual	
Gain	Manual (0 to 18 dB), Off (0dB)	
Electronic Shutter	Manual (1/100 to 1/100,000 sec) Synchro Scan (1-512 Frames)	
Sensitivity	F6.8 Standard (2,000 Lux, 3,000K)	
Noise Reduction	On / Off	
Minimum Illumination	14 Lx (f2.2 +18dB, 3,000K)	
Lens Mount	C-Mount flange back 17.526mm in air	
Ambient Temperature	0° C – 40° C (32° F - 104° F)	
Ambient Humidity	Less than 90%	
Input Power	12 VDC ±10% PoCL® or DC Connector	
Interface	Serial data interface TC(RXD) TFG(TXD)	
Power Consumption	Approx 3.2W Normal Approx 3.4W Partial Scan	Approx 3.0W Normal Approx 3.1W Partial Scan
Dimensions W H D	44 x 44 x 78 mm 1.73 x 1.73 x 3.07"	
Weight	158g (0.35 lbs)	
Class	FCC Class A, CE	

IK-TF5P2 IK-TF7P2

High Resolution 3CCD Color Cameras



DC IN 12V		Digital		Function		I/O
1	+12V	1	+12V	14	GND	-
2	+12V	2	XO-	15	XO+	O
3	GND	3	X1-	16	X1+	O
4	GND	4	X2-	17	X2+	O
		5	Xclk-	18	Xclk+	O
		6	X3-	19	X3+	O
		7	SerTC+	20	SerTC-	Serial communication control (RXD)
		8	SerTFG-	21	SerTFG+	Serial communication control (TXD)
		9	CC1-	22	CC1+	Trigger pulse input
		10	CC2+	23	CC2-	Partial scanning control
		11	CC3-	24	CC3+	External HD input
		12	CC4+	25	CC4-	External VD input
		13	GND	26	+12V	-

Connector Used: HR10A-7P-4PB (HIROSE Electronics Co. Ltd) or equivalent

Connector Used: 12226-51000-00 (3M) or equivalent