

CV Series

Multifunctional Thermal Imaging Chip

Specification Version V1.0



Product Model: CV640-TIF

Functional
parameter

Model		CV640-TIF-6.8MM	CV640-TIF-9MM	CV640-TIF-13MM	CV640-TIF-18MM	CV640-TIF-25MM	CV640-TIF-35MM	CV640-TIF-50MM
Lens Parameters	Lens focal length (mm)	6.8mm	9mm	13mm	18mm	25mm	35mm	50mm
	Angle of field °	58.9*48.6°	46.2*37.7°	33.9*26.6°	24.1*19.4°	17.5*14°	12.5*10°	8.8*.7°
	Discovery Distance	680m	900m	1300m	1800m	2500m	3500m	5000m
	Recognition Distance	170m	225m	325m	450m	625m	875m	1250m
	Resolving distance	85m	113m	163m	225m	313m	438m	625m
Detector Parameters	Sensor Type	(Non-cooled focal plane detector) Vanadium oxide						
	Spectral response	8~14um						
	Array Size	640×512 (effective surface array)						
	NETD	≤25mK@25℃,F#1.0,25Hz						
	Detector Frame Rate	60Hz						
Interface parameters	Analog Image Interface	CVBS (PAL format)						
	Control interface	UART (baud rate: 115200)						
	Interface Specifications	SMD,P=1.25mm-5P						
Functional parameter	Color Blending Mode	White Heat (Default Mode), Black Heat						
	Image Enhancement Mode	Supports adjustment						
	Luminance	Supports adjustment						
	Contrast ratio	Supports adjustment						
	Electronic Zoom	1X to 8X zoom						
	Screen Mode	With gear selection, automatic shifting						
	Pot Lid Calibration	Supports UART serial port protocol						
	Non-uniformity Correction (NUC)	Supports UART serial port protocol						
Physical characteristics	Power Input	5v~18v						
	Working temperature	-20℃~+60℃						
	Power dissipation	≤0.8w						
	Impact	80g @ 4ms						
	Weight	26g	26g	26g	26g	46g	64g	122g
	Size (refer to the 2D/3D drawings for exact dimensions)	21*21*36.5mm	21*21*34.5mm	21*21*36.5mm	21*21*38mm	21*21*45.8mm	21*21*52.5mm	21*21*66.1mm
	Secondary Development	/						

Size Specifications/Interface
Definitions

Interface Definition		5-pin/1.25-terminal
		1: TX
		2: RX
		3: CVBS
		4: GND
		5: 5V-18V