ANPR Camera program



ANPR-80RL camera series for Parking and Gate control



The ANPR-80RL series are featured for an effective range of 2 \sim 15 mtr. with speeds from 30 kph up to 160 kph.

Ideal fit for parking lots and gate control situations.

With it's compact size (\emptyset 96 x 125mm) and light weight, the system can be easy installed.

The ANPR-80RL series provides an integrated camera together with the IR strobe assembled in one IP66 rated housing what makes it suitable for installation at small places.

Features

- DSI technology
- More then 50% Energy Saving
- Easier to remedy with modular design
- Quick connector available
- 3 Axis angle design
- Compact size: Ø96 x 125 mm.
- Affordable price and high reliability
- Automatic Shutterspeed





Rapid System Selector

MVP-80 RL/12



Speed Limit:**30 kph to 50 Kph**IR Effective range:**ANPR mode: 2 ~ 5 mtr.**Encapsulation:IP66Power Consumption:6 WattInput Voltage:12 VDC

MVP-80 RL/16



MVP-80 RL/25



Speed Limit:	50 kph to 100 Kph
IR Effective range:	ANPR mode: 3 ~ 10 mtr.
Encapsulation:	IP66
Power Consumption:	6 Watt
Input Voltage:	12 VDC

Speed Limit:	70 kph to 160 Kph
IR Effective range:	ANPR mode: 5 ~ 15 mtr.
Encapsulation:	IP66
Power Consumption:	6 Watt
Input Voltage:	12 VDC





SYSTEM:	MVP-80RL/12	MVP-80RL/16	MVP-80RL/25	
IR Strobe				
Infrared Wavelength:	850 nm.			
Angle:	40°	20/40°	20°	
Led Quantity:		80		
Speed Limit:	30 kph up to max. 50 kph (depend on camera setting)	50 kph up to max. 100 kph (depend on camera setting)	70 kph up to max. 160 kph (depend on camera setting)	
Effective IR range:	2 mtr. \sim 5 mtr.	3 mtr. ~10 mtr.	5 mtr. \sim 15 mtr.	
Camera	1	1		
Lens & View Angle:	F2.0 f:12 mm.	F2.0 f:16 mm 20/40°	F1.8 f: 25 mm - 20°	
Minimum Illumination:		0 Lux with IR Strobe		
Image sensor:		1/3"CCD Image Sensor		
Pixel rating:	796 x 596 (H x V)	811 x 508 (H x V)	796 x 596 (H x V)	
Sysnc system:		Internal		
Resolution:		540 TVL		
S/N Ratio typical (max.)	52 / 60 dB			
Auto Iris:		Auto switched by light sensor		
Electronic shutter:	Day time mode: 1/50 ~ Day time mode: 1/60 ~ Day time mode: 1/60 ~ 1/120,000 sec. Night time mo- 1/120,000 sec. Night time mo- 1/120,000 sec. Night time mo- de: 1/1,000sec. de: 1/500sec. de: 1/1,000sec.		Day time mode: 1/50 ~ 1/120,000 sec. Night time mo- de: 1/1,000sec.	
System:	PAL			
Image presentation				
Video Output:	1.0 V p-p composite video at 75 Ohm			
Gamma correction:	1/0.45			
Gain Control:	AGC			
Power Supply				
Input Voltage:	12V DC			
Power Dissipation	6W			
Environment				
Operating Temperature	$-20^{\circ}\mathrm{C} \sim +50^{\circ}\mathrm{C}$			
Relative Humidity:	Up to 95% none condensing			
Encapsulation:	IP66			
Psychical Characteristi	cs			
Housing colour:	Silver - Optional : Black			
Weight:	1 KG			
Size:	Ø 96 x 112 x 125 mm. (LxWxH)			



Description







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ANPR320/L6-60/ZL320 Ultra High Speed IR Strobe



The ANPR320L series are featured for an effective range of $15 \sim 20$ mtr. At normal speeds of 160 and up to maximum speeds of 220 kph.

The ANPR320L series provides an integrated camera together with the IR strobe assembled in one IP66 rated housing suitable for installation at high ways.

Features

- DSI technology
- More then 50% Energy Saving
- OSD function & quick connector design
- Effective distance 15 \sim 20 mtr. (number plate mode
- Built in 6 60 IR zoom lens
- Capture Speed range: 160 ~ 220 kph.
- Compact size: 260 x 290 x 310 mm.
- Affordable price and high reliability





Rapid System Selector

ANPR320/L6-60



Speed Limit:	Normally : 160 kph Up to: 220 kph
IR Effective range:	ANPR mode: 15 ~ 20 mtr. Surveillance Mode: 150 mtr.
Lens & View Angle:	F1.6 f:6~60mm IR Lens Optional
Image sensor:	1/3" CCD
Encapsulation:	IP66
Power Consumption:	18 Watt
Input Voltage:	24 VDC

ANPR320/ZL22



Speed Limit:	Normally : 160 kph Up to: 220 Kph
IR Effective range:	ANPR mode: 15 ~ 20 mtr. Surveillance Mode: 150 mtr.
Lens & View Angle:	10X optical ZOOM LENS F1.8~2.9 f=4.2~42.0mm, 100X (10X optical 10Xdigital)
Image sensor:	1/4" CCD
Encapsulation:	IP66
Power Consumption:	18 Watt
Input Voltage:	24 VDC





SYSTEM:	ANPR320/L6-60	ANPR320/ZL22	
IR Strobe			
Infrared Wavelength:	NIR850 nm.		
Angle:	2	20°	
Illumination source:	320	LED's	
Speed Limit:	Normal speed: Maximum up to: (Depends on o	160 kph 220 kph camera setting)	
Effective IR range:	Number Plate ANPR: Surveillance Mode up to	15 ~20 mtr. o: 150 mtr.	
Camera			
Lens & View Angle:	F1.6 f:6 ~ 60 mm. IR lens optional	10 x Optical Zoom lens F1.8 ~ 2.9 f:4.2 ~ 42.0 mm. (10 x Optical - 10 x Digital	
Minimum Illumination:	0	Lux	
Image sensor:	1/3"CCD Image Sensor	1/4"CCD Image Sensor	
Pixel rating:	410/470 K		
Sysnc system:	Inte	ernal	
Resolution:	540 TVL	520 TVL	
S/N Ratio typical (max.)	52/60 dB		
Auto Iris:	DC		
Electronic shutter:	1/50 ~ 1/120,000 sec.		
System:	PAL		
Image presentation			
Video Output:	1. 0 V p-p composite video at 75 Ohm		
Gamma correction:	1/0.45		
Gain Control:	AGC		
Power Supply			
Input Voltage:	24V DC /1.5 A		
Power Dissipation	25W		
Environment			
Operating Temperature	-20°C \sim +50°C		
Encapsulation:	IP66		
Psychical Characteri	istics		
Housing colour:	Silver - Optional : Black		
Weight:	4 KGS		
Size:	153 x 237 x 277 mm. (LxWxH)		





Double AR coating Optical Glass & Sunshine cover
IR Strobe Protect cover
Main Structure of IR Strobe
Bracket
Multifunctional Fixer
Quick Connector for Power, I/O and Video output
Heat sink
Delay time setting / Brightness setting cover



BS36 Strobe for Highway control



Benefits fo the BS36 Strobe model:

- \Rightarrow Perfectly used for E-Toll
- \Rightarrow Dual Lanes and even more then dual lanes
- \Rightarrow Enforcement
- \Rightarrow Designed for ANPR applications
- \Rightarrow High recognitian rate

Features

- 3K ~500 Hz. Pulse Range
- 110µs timing repetition for high frame rates
- Wide Temperature detect range
- Pulse width to 2 ms.
- Support with three types of signals
- RS485 Interface



Tolling applications



Speed enforcement



Red light enforcement



Vehicle Detection



Model:	BS36
IR Strobe	
Infrared Wavelength:	NIR850 nm.
Been angle:	20°/40°/60° (optional)
Illumination source:	High Power LED's
Speed Limit:	Normal speed: 160 kph Maximum up to: 220 kph (Depends on camera setting)
Effective IR range:	Number Plate ANPR: 100m / 30 mtr. (ANPR model)
Trigger Modes:	 Trigger Mode (Flashes upon input pulse) Video/HD-SDI Mode (PAL & Progressive)
Max. trigger frquency:	10kHz
Max. Pulse width:	2 ms.
Control/Communication:	RS485
Power Supply	
Input Voltage:	12V DC /3 A
Environment	
Operating Temperature	$-20^{\circ}\text{C} \sim +60^{\circ}\text{C}$
Encapsulation:	IP66
Psychical Characteristic	cs
Housing colour:	Silver - Optional : Black
Weight:	6.5 KGS
Size:	281 x 288 x 282 mm. (LxWxH)





Α	High Power LED's and LDP can be up to 630 W. White and Bleu also availlable		
В	Negative Pressure design to avoid oil and dust polution. Keeps also clear image at direct sun- light		
С	Robust Steel coated Housing		
D	Bracket		
E	Rotation Angle design to avoid horizontal problem from ANPR system		
F	Antenna holder		
G	Switch and 3G modem holder		
н	Cabling glants		
I	Embedded Board and 2.5 SSD holder		





Available only for RS485 interface

- 1. Insert the TTL signal from device into LED strobe
- 2. Select delay timing and duration by the RS485 program
- 3. Maximum trigger frequency will at 10 KHz
- 4. Duration range can be 2ms. Set as maximum
- 5. Can be support input voltage from 3.3VDC ~24 VDC



BANC1613/ BANC1625 Traffic Network camera



- \Rightarrow Full integration with BS36 Strobe, AN-PR320/L6-60 and ANPR320/ZL22
- \Rightarrow Premium Image Quality
- \Rightarrow CCD and CMOS sensors
- \Rightarrow Multi Streaming and multi-encoding
- \Rightarrow MJPEG, MPEG-4, H.264

Features

- Premium image quality
- CCD and CMOS sensors
- Multi streaming and multi encoding
- Supports: MJPEG, MPEG-4 formats
- Compression: H.264
- Compact size: 109.7 x 29 x 44 mm.
- Affordable price and high reliability

Applicationss



Enforcement

More then Dual Lanes







Test Results



- Installation Height: 6 mtr
- Distance between camera and target: 15 mtr.
- Camera: 2 Megapixel
- Shutter Speed 1/1.000s
- Gain Control OFF
- LED Strobe with multi flash
- Cover Lanes Single Lane



- Installation Height: 6.5 mtr
- Distance between camera and target: 25 mtr.
- Camera: 2 Megapixel
- Shutter Speed 1/1.000s
- Gain Control OFF
- LED Strobe NIR 850nm
- Cover Lanes Single Lane



Camera model	BANC1613 BANC1			BANC1625		
Image sensor:	Progressive Scan CCD, global shutter					
Effective pixels:	1.280 x 960 (H x V) 1.600 x 1.200 (H x V)			x V)		
Effective optical format:		1/3″			1/1.8″	
Max. Frame Rate :	MJPEG	MPEG	H.264	MJPEG	MPEG	H.264
Full resolution:	30 fps	30 fps	30 fps	12.5 fps	12.5 fps	12.5 fps
Pixel rating:	3.	75 μm x 3.75 μ	m	4.	4 μm x 4.4 μ	m
Minimum Illumination:	Colour Day/Nigh	: 0.34 lux (F1.2/ t: 0.09 lux (F1.	33 ms) 2/33 ms)	Colour Day/Night	: 0.4 lux (F1.4, :: 0.11 lux (F1	/33 m <mark>s)</mark> .4/3 <mark>3 ms)</mark>
Lens:		CS-mou	nt, DC iris driv	e (lens not inclu	uded))	
Image settings:	Automatic ga tation, morro	in, exposure are ring of images, a v	a, backlight co anti-flicker, ele vacy masks, m	ompensation, wi ectronic PTZ via otiton detection	hite balance, 1 AOI (API), tex	80° image ro- rt overlay, pri-
Resolution:	From 16 (free scaling)	50 x 120 to 1.28), 4:3, 16:0 muli Interest (AOLS)	0 x 960 tple areas of	From 160 (free scaling),	x 120 to 1.60 4:3, 16:9, mu Interest (AOIs)	0 x 1.200 Ilitple areas of
Video compression:	MPEG-4: SP (level3) H.264 (MPEG-4 AVC: Baseline and high profile (levels up to 5.0) Multi-encoding and multi-streaming for MJPEG, H.264 and MPEG-4					
Video Streaming:	Motion JPEG: Multiple compression levels VBR and CBR for MJPEG and MPEG-4; VBR, CBR and CVBR for H.264; multicast and uni- cast; Uncompressed YUV images using real-time triggers (max. 4 fps)					
Alarm Management:	Ring buffer for pre- and post alarm images, micro SDHC card slot for local storage. Events triggered by motion detection or eternal input (real-time trigger) Image upload over FTP, e-mail or HTTP					
Protocols:	TCP/IP, HTTP, UDP, FTP, ICMP, ARP, DHCP, NTP, RTP, RTSP, RTCP, SMTP, IGMP, ZERO- CONFIG, Qos Layer 3, SNMP					
Processor/Memory:	Multimedia Video Processor, FGPA, 256 MB RAM, 64 MB Flash					
Connectors:	RJ-45 connector for 10/100 BASE-T ethernet, full or half duplex					
	8-pin terminal for DC power, Digital I/O and RS-485					
Power Supply						
Input Dissipation:	3,5 W max at12 VDC 3.4W max at 12 VDC					
Power:	PoE (Power over Ethernet) IEEE802.3 Class 2 or 12 to 24 VDC power consumption type					
Environment						
Operating Temperature	-10°C \sim +50°C		Storage Tempera	ature:	$0^{\circ}\mathrm{C} \sim +50^{\circ}\mathrm{C}$	
Relative Humidity:	<90% Relative Humidity (Non condensing)					
Standards:	DIN EN 50130-4, FCC Class B, CE, RoHS, ONVIF					
Psychical Character	istics					
Housing:	Full metal casing			Colour:		White
Size:	109.7 ×	29 x 44 mm. (L	_xWxH)	Weight:		~ 210 g.



ANPR Software



For the ANPR software BCE works together with Q-Free which is the leading global supplier of products and solutions within ITS (Intelligent Transport Systems) for Road User Charging and Advanced Transportation Management.

They offering applications mainly within electronic toll collection for road financing, congestion charging, truck-tolling, ERI (Electronic Registration Identification) and parking/access control.

Additional advantages of the software:

- \Rightarrow Delivers state of the art technology globally and is the leading supplier for turn-key solutions
- \Rightarrow DSRC (Dedicated Short Range Communication) technology
- \Rightarrow ALPR (Automatic License Plate Registration)
- \Rightarrow GNSS (Global Navigation Satellite System).

Features

- High reliability with extremely low error rates
- High read rates
- Country and state identifi cation
- More than 100 supported countries
- Plate-style identifi cation
- Deployments all over the world
- Interlaced/non-interlaced images
- Color, grayscale and black/white

Applications

- A Road user charging, congestion charging
- Speed enforcement, red-light enforcement
- Access control, parking
- Security, surveillance
- Traffic monitoring, travel time



ANPR Software





Overview	Area of Interest	Countries	Character size Reference frame Stopping citteria Camera settings Camera position Ge	meral
Availat	le courtries			
			Private_plate_until_2011	*
D6759 Private EU-style plate issued until 2011 in black on white. [520x113mm, black on white, front_and_rear]				
	od, ddd, dddd, ddddd			
Private_plate_until_2011				
	-: CT1 Private USA style plate issued until 2011 in black on white. [320x160mm, black on white, front_and_rear]			
			dd, ddd, ddddd	
E S	VAE_AZ UAE - Abu Dhabi (2 plate styles)			
	Private_plate_since_2006			
Private EU-style plate issued since 2006 in black on white. [520x113mm, black on white, front_and_rear]				
ddd, dddd, ddddd				
Private_plate_since_2006				
Private USA-style plate issued since 2006 in black on white. [320x160mm, black -				
□ C	untry / Plate etyle	available.	County not available. Plate etyle not available. Select al Deselect al	
	Help	Code	Default Load Save Ok Cancel /p	ργ

Technical specifications

Hardware Platforms:	PC, PowerPC, DSP, ARM
Operating Systems:	Windows, Linux, Unix, Solaris
File formats:	JPG, TIFF, GIF, PNG, BMP
Coloring	Color, Grayscale, Bayer (CFA) color patterns
Bits per pixel:	8 bits, 12 bits

References

- Stockholm: 97 % correct reads with a maximum error rate of 0.01 % on a transaction level. Q-Free supplied road-side, back-offi ce, and designed the business rules to realize these performance figures.
- * **Amsterdam Environmental Zone**: 95 % correct reads with below 0.02 % error rate using front images only. Q-Free supplied the embedded ALPR engine and the secondary ALPR engine in road side computers, and designed the configuration



BCE Bos Consultancy Enterprises

BCE Bos Consultancy Enterprises is a Dutch based company, constantly building, extending and maintaining a network of distributors throughout Europe and Russia. Our aim is to identify resellers in each country to establish reliable long-term partnerships. BCE has the wide knowledge and specialization to deliver solutions for the high end of the security spectrum. BCE represents a large number of international manufacturers specialized in video networks for cities and industrial zones, thermal camera's, switches, personal media radio systems and covert solutions like as:



Wavesight

Wireless Video Outdoor Netwrok solutions suitables at cities, harbors, airports and industrial areas. Providing stable Point to Point and Point to Multipoint connections up to 300 Mbps and 40 kilometers of distance with license free and licensed connections.



Switches, power supplies and Surge Protectors.

A great variety of industrial and desktop switches. Managed, Unmanaged, PoE, PoE+ switches suitable for integrated use at surveillance systems of cameras and wireless radio configurations. Up to 1 Gb.



RapidCam

RapdiCam is a rapid to deploy, user friendly stand alone camera solution which can be used for observation and covert covert purposes.



Thermal camera program.

Thermal camera solutions for use at Industrial sites, Border control, Airports, Harbours, Perimeters etc. For bright exposure in colour at day time and monochrome during night time. Solutions up to a distance of 5 kilometers.



ANPR Camera Program.

ANPR camera program to monitor number plates at sites, parking lots, entry/exit gates and highways at speeds up to 220 kmph. Can be also delivered with ANPR software or built-in Stainless steel pole.

DISTRUBUTED BY:



DigiController

IP based I/O controller supporting many connectivity protocols. With web based interface, DIN rail mount and small form factor.



Body Warn Camera program.

The most reliable Portable Law Enforcment camera system used at Police, Special forces, border Control, fire brigades, Surveillance and Security Guards

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Smartdect

Full stand alone camera system. Can be either used as point to point communication as well as within remote network environments. Specially designed for observation and covert operations.

Cartag

Wireless security system protect stealing parts from cars parked at parking places of car dealers, lease companies and fleet owners.



Patio Mounts and Brackets.

Robust steel galvanised, aluminium or stainless steel patio mounts, pole extenders, L + M wall brackets and U-clambs in different size and design. Ideal for easy installation of radios and cameras at top of buildings, poles and walls.



Stand Alone Solar Power Systems.

The small light weight and rapid deploy solar solution for cameras and radio's at sites without any infrastructure

BCE Bos Consultancy Enterprises

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