

welcome!



PIXELPLUS 



HISTORY



Jan.
Developed high performance 1/8" VGA SoC[PO8030] for mobile and home appliance applications

Feb.
Developed high performance 1/4" VGA SoC[POA030]

Sep.
Developed high performance 1.5MP SoC[PO1150]

May.
Supplied PO1030[VGA] to Samsung Electronics

Dec.
Developed the world's first SXGA SoC[PO2130, 1.3MP] and supplied it to Samsung Electronics

Mar.
Introduced the SoC processor[PM1002] for various recognition applications

Apr.
1/11" CIF[PO4010] was selected as the standard sensor for Samsung VT phone camera

Jun.
Developed high performance 1/4" NTSC/PAL analog SoC[PC1030] for security & automotive applications

Apr.
Established

Aug.
Made a contract with Tower Semiconductor for 0.35um CIS

Jul.
Made a contract with DONGBU Semiconductor for 0.25um CIS

Nov.
Supplied SXGA SoC [PO3130, 1.3MP] to Logitech

Nov.
Made a contract with UMC for 0.15/0.13 CIS

2009

2008

2001

2003

2004

2005

2007

2000

Jun.
Developed the world's first CIF SoC[PO2010, 0.1MP] and supplied it to Sharp

Oct.
Won the Grand Presidential Medal for the Venture Business Award

Feb.
Made a contract with Sharp for 0.18/0.11um CIS

Mar.
Introduced a video encoder[PI1008] for analog video output applications

Jun.
Developed high performance 1/3" NTSC/PAL analog SoC [PC1089]

Jun.
Developed 1/3" 1MP(720P) SoC which supports 60fps[PH1100]

Sep.
Developed high sensitivity 1/3" NTSC/PAL analog SoC[PC3089]

Oct.
Developed the world's first 1/3" 960H analog SoC[PC1099]

Jan.
Developed high performance 1/4" NTSC/PAL analog SoC[PC3030]

May.
Developed high performance 1/4" NTSC/PAL analog SoC[PC6030]

Dec.
Developed high performance WDR 1/3" NTSC/PAL analog SoC[PX2089]

Mar.
Developed high sensitivity 1/3" 1MP(720P) SoC[PO3100]

Aug.
Developed high sensitivity & cost effective 1/4" NTSC/PAL analog SoC [PC7030]

Apr.
Developed FHD ISP with 960H encoder [PI2008]

Jun.
Developed 1/3" FHD(1080P) bayer CIS[PS1210]

Jul.
Developed 1/3" HD(720P) bayer CIS[PS4100]

May.
Developed 1/3" HD(720p) SoC with embedded CVI Tx [PV1100]

Jul.
Developed 1/3" FHD(1080p) SoC[PO2210]

Aug.
Developed FHD ISP with LDC function [PI3008]

Oct.
Developed 1/4" VGA SoC for automotive camera with AEC-Q100 qualification [PC9030]

Sep.
Developed HD-Analog Tx [PT1000]

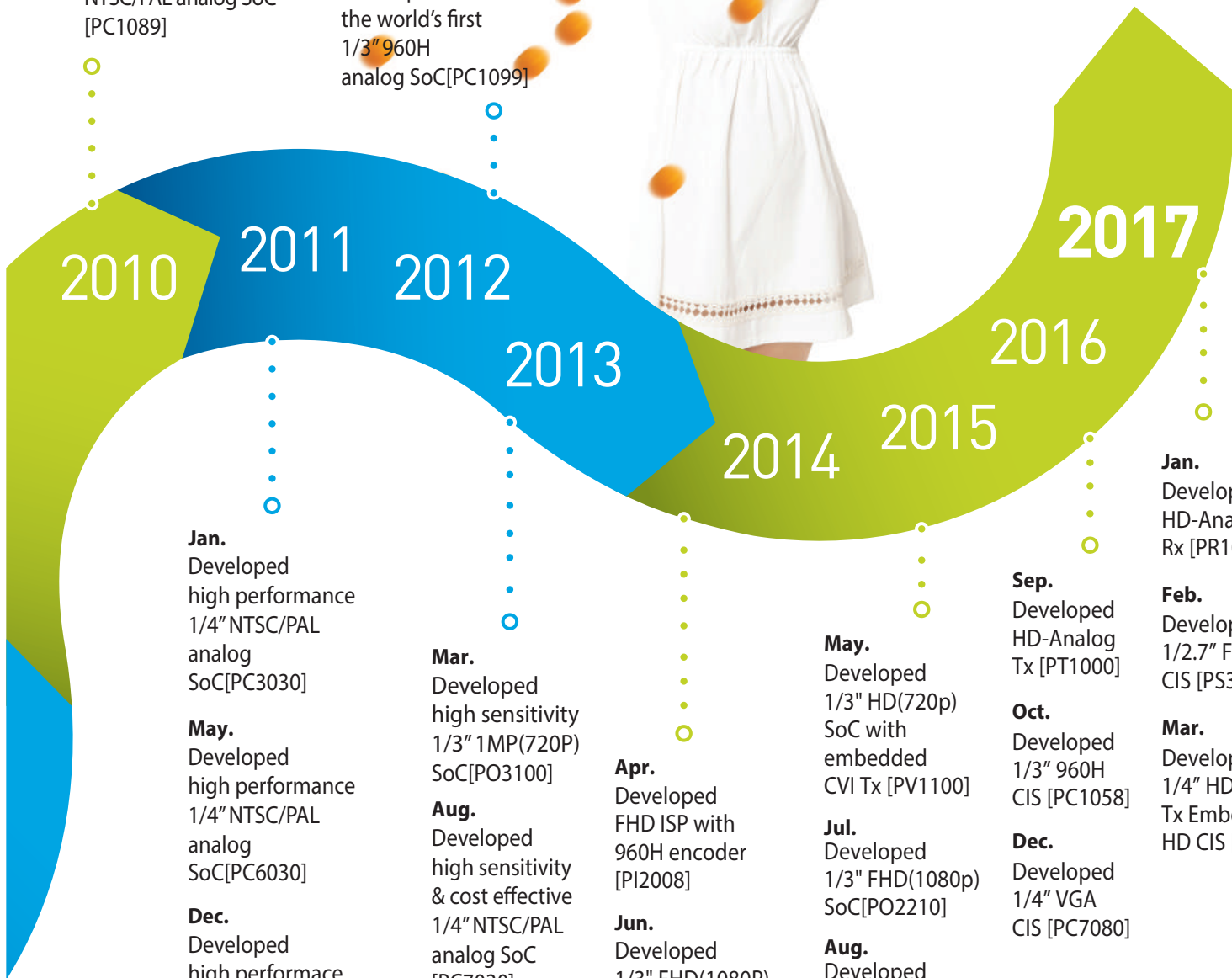
Oct.
Developed 1/3" 960H CIS [PC1058]

Dec.
Developed 1/4" VGA CIS [PC7080]

Jan.
Developed HD-Analog Rx [PR1000]

Feb.
Developed 1/2.7" FHD CIS [PS3210]

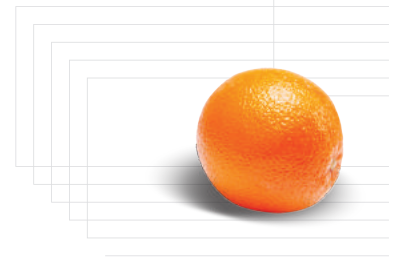
Mar.
Developed 1/4" HD-Analog Tx Embedded HD CIS [PV2109]





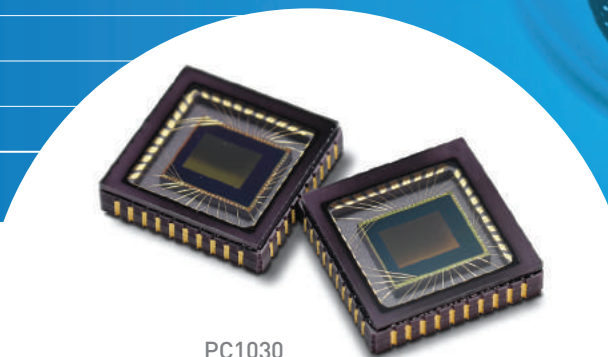
ANALOG SOLUTION

640H NTSC/PAL IMAGE SENSOR

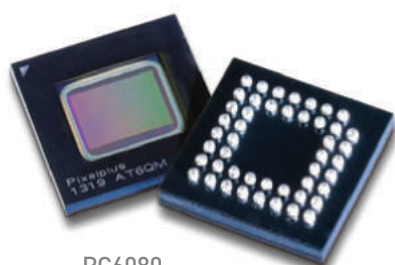


PC1030

Optical Format	1/4 inch
Pixel Size	5.55 μm x 5.55 μm
Effective Pixel Array	648 x 488
Output Format	NTSC/PAL, Digital
Input Clock Frequency	27MHz (Max.54MHz)
Frame Rate	60fps, 640x480 YCbCr@54MHz 60fps, 640x480 Bayer@27MHz 60fields/sec, 720x240(288) YCbCr@27MHz 60(50)fields/sec, CVBS@27MHz
Sensitivity	3.16 V/Lux.sec
Power Consumption	213 mW@Dynamic 19.2 μW @Standby
Operation Temp.	-40 ~ 85 °C
Package	CLCC
Status	MP



PC1030

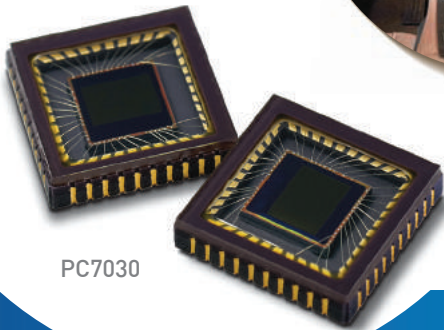


PC6080

PC6030 / PC6070 / PC6080

Optical Format	1/3.7 inch
Pixel Size	6.0 μm x 6.0 μm
Effective Pixel Array	648 x 488
Output Format	NTSC/PAL, Digital
Input Clock Frequency	27MHz (Max.54MHz)
Frame Rate	60fps, 640x480 YCbCr@54MHz 60fps, 640x480 Bayer@27MHz 60fields/sec, 720x240(288) YCbCr@27MHz 60(50)fields/sec, CVBS@27 MHz
Sensitivity	8.2 V/Lux.sec
Power Consumption	315.2 mW@Dynamic 305.9 μW @Standby
Operating Temp.	-40 ~ 105 °C
Package	CLCC, CSP, im2BGA (AEC-Q100 qualified)
Status	MP

640H NTSC/PAL IMAGE SENSOR



“Cost effective VGA Solution with high sensitivity”



PC7030

PC7080S

Optical Format	1/4 inch	1/4 inch
Pixel Size	5.6 μm x 5.6 μm	5.6 μm x 5.6 μm
Effective Pixel Array	648 x 488	648 x 488
Output Format	NTSC/PAL	NTSC/PAL
Input Clock Frequency	27MHz	27MHz
Frame Rate	60fields/sec, 720x240(288) YCbCr@27MHz 60(50)fields/sec, CVBS@27 MHz	60fields/sec(NTSC) 50fields/sec(PAL)
Sensitivity	9.8 V/Lux.sec	12.5V/Lux.sec
Power Consumption	312.8 mW@Dynamic 391.6 μW @Standby	272mW@Dynamic@NTSC 297mW@Dynamic@PAL 428 μW @Stanby
Operation Temp.	-40 ~ 85 °C	-40 ~ 105 °C
Package	CLCC	CLCC, CSP
Status	MP	MP

APPLICATIONS

1/4 inch NTSC/PAL image sensor with 640 x 480 pixels array
 / Security & Surveillance / Automotive Imaging / Medical Imaging /
 / Toy & Entertainment / Biometric Solution / Others /



PC9030

**“Superior 1/4inch Single Chip Solution
designed for Automotive Camera”**

NEW

PC9030



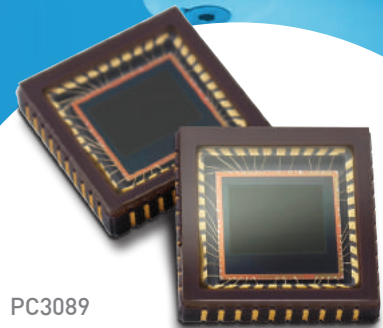
Optical Format	1/4 inch
Pixel Size	5.6 um x 5.6 um
Effective Pixel Array	712 x 552 (Including dummy pixels for lens alignment tolerance)
Output Format	NTSC/PAL, Digital
Input Clock Frequency	27MHz(Max.54MHz)
Frame Rate	60fps, 640x480 YCbCr@54MHz 60fps, 640x480 Bayer@27MHz 60field, 720x240(288) YCbCr@27MHz 60(50)fields/sec, CVBS@27MHz
Sensitivity	16 V/Lux.sec
Power Consumption	346.5 mW@Dynamic 478.5 uW@Standby
Operating Temp.	-40 ~ 105 °C
Package	CLCC/CSP/IM2BGA(AEC-Q100 Qualified)
Status	MP

720H NTSC/PAL IMAGE SENSOR



PC3089

Optical Format	1/3 inch
Pixel Size	6.35 μm x 7.4 μm
Effective Pixel Array	756 x 504
Output Format	NTSC/PAL, Digital
Input Clock Frequency	27MHz (Max.54MHz)
Frame Rate	60fps, 720x480 YCbCr@54MHz 60fps, 720x480 Bayer@27MHz 60fields/sec, 720x240(288) YCbCr@27 MHz 60(50)fields/sec, CVBS@27 MHz
Sensitivity	13.2 V/Lux.sec
Power Consumption	380 mW@Dynamic 363 μW @Standby
Operation Temp.	-40 ~ 85 °C
Package	CLCC
Status	MP



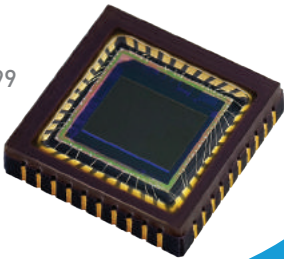
APPLICATIONS

1/3 inch NTSC/PAL image sensor with 720 x 480 pixels array
 / Security & Surveillance / Automotive Imaging / Medical Imaging /
 / Toy & Entertainment / Biometric Solution / Others /

960H NTSC/PAL IMAGE SENSOR



PC1099



“The World’s First 960H Single Chip Solution”

PC1099

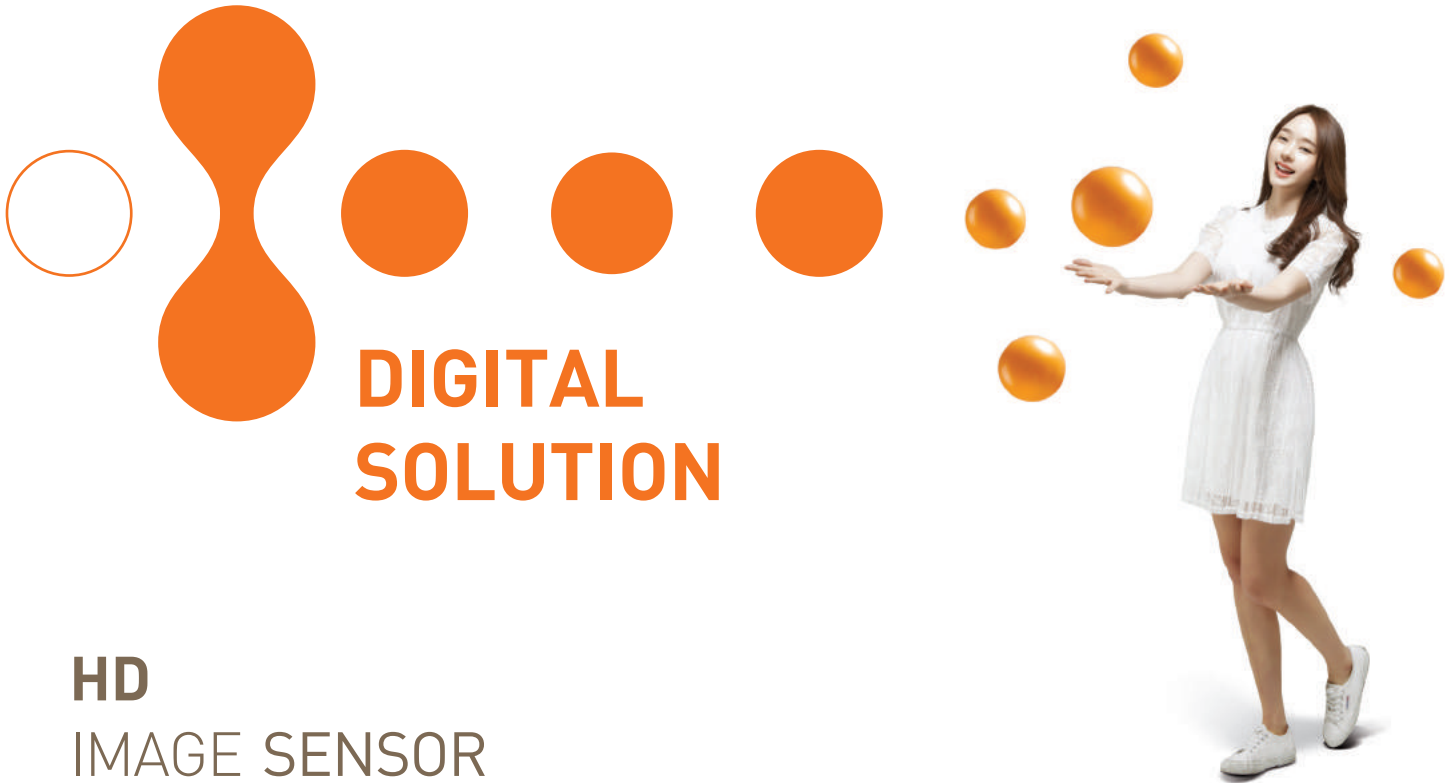
PC1058

Optical Format	1/3 inch	1/3 inch
Pixel Size	5.0 μm x 7.4 μm	5.0 μm x 6.2 μm
Effective Pixel Array	976 x 496	976 x 592
Output Format	NTSC/PAL, Digital	NTSC/PAL, Digital
Input Clock Frequency	27MHz	27MHz
Frame Rate	60fps, 960x480 YCbCr@72MHz 60fps, 960x480 Bayer @36MHz 60fields/sec, 960x240(288) YCbCr@36MHz 60(50)fields/sec, CVBS@36MHz	60fps, 960x576 YCbCr@108MHz 60fps, 960x576 Bayer@54MHz 60field, 960x240(288) YCbCr@36MHz 60(50)fields/sec, CVBS@36MHz
Sensitivity	10.8 V/Lux.sec	10.9 V/Lux.sec
Power Consumption	468 mW@Dynamic 363 μW @Standby	452.1 mW@Dynamic 466.4@Standby
Operating Temp.	-40 ~ 85 °C	-40 ~ 85 °C
Package	CLCC	CLCC
Status	MP	MP

APPLICATIONS

1/3 inch NTSC/PAL image sensor with 960 x 480 pixels array

/ Security & Surveillance / Automotive Imaging / Medical Imaging /
/ Toy & Entertainment / Biometric Solution / Others /



DIGITAL SOLUTION

HD IMAGE SENSOR

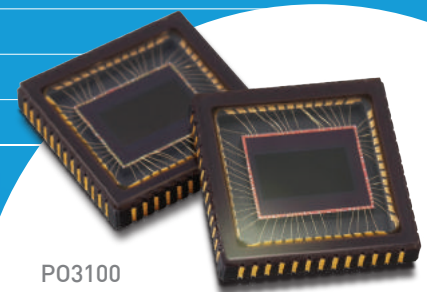
“The World’s First HD Single Chip Solution with SMPTE 296 interface”

P03100 720p

720p PS4100

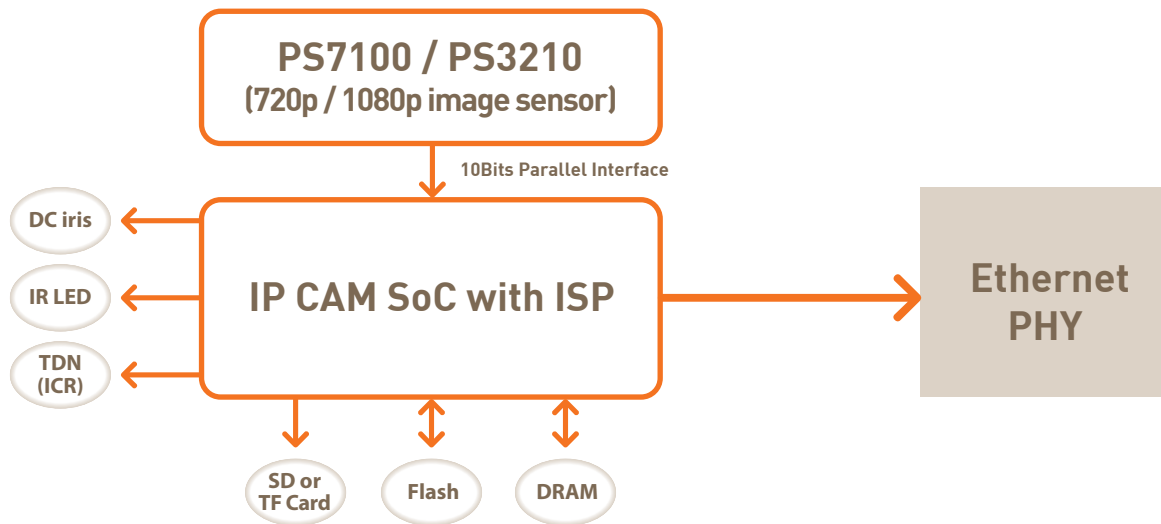
Optical Format	1/2.9 inch
Pixel Size	4.2 um x 4.2 um
Effective Pixel Array	1312 x 740 720p
Output Format	BT656(YCbCr), BT1120(YCbCr)
Input Clock Frequency	27MHz
Frame Rate	60fps, BT1120@74.25MHz 30fps, YCbCr@74.25MHz 60fps, Bayer@74.25MHz
Sensitivity	4.6 V/Lux.sec
Power Consumption	257.0 mW@Dynamic 429.0 uW@Standby
Operation Temp.	-40~85 °C
Package	CLCC, PLCC
Status	MP

Optical Format	1/2.9 inch
Pixel Size	4.2 um x 4.2 um
Effective Pixel Array	1296 x 736
Output Format	Raw Bayer (10Bit Parallel & Sub-LVDS)
Input Clock Frequency	27MHz
Frame Rate	60fps, Bayer@74.25MHz
Sensitivity	5.0 V/Lux.sec
Power Consumption	(Parallel 30fps) 122.0 mW@Dynamic (LVDS 30fps) 169.3 mW@Dynamic 422.4 uW@Standby
Operation Temp.	-40~85 °C
Package	CLCC
Status	MP



P03100

HD/FHD IMAGE SENSOR

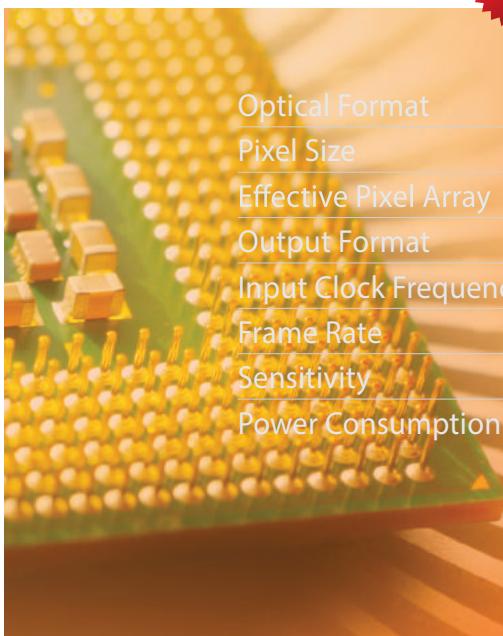


NEW

720p **PS7100**

NEW

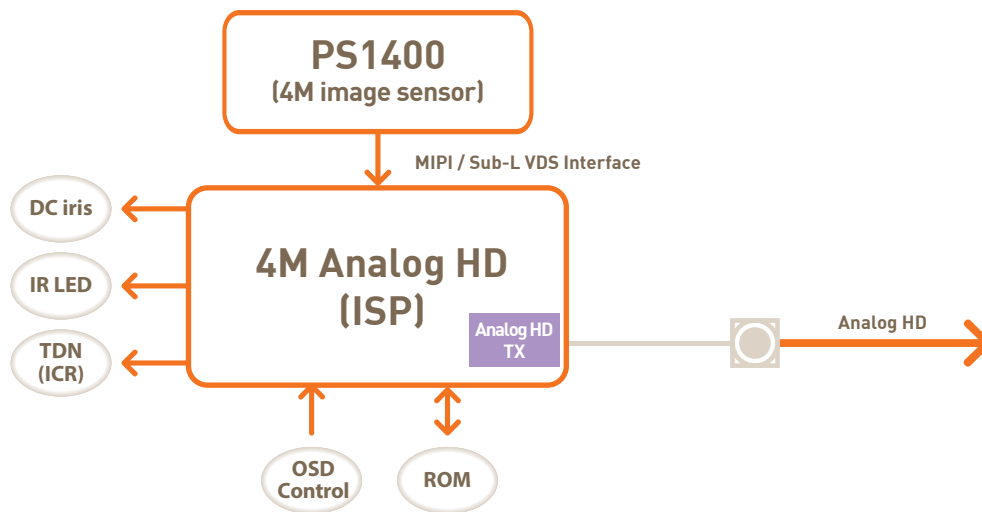
1080p **PS3210**



Optical Format	1/4 inch	1/2.7 inch
Pixel Size	2.8 um x 2.8 um	3.0 um x 3.0 um
Effective Pixel Array	1296(H) x 736(V)	1936 x 1096
Output Format	10-bit parallel with bayer	Raw Bayer (10Bit Parallel & MIPI)
Input Clock Frequency	4~27MHz	27MHz
Frame Rate	Parallel 60fps, Parallel 30fps	Parallel 30fps, MIPI 30fps/60fps
Sensitivity	3.6V/Lux.sec	3.46[V/Lux.sec]
Power Consumption	124.53 mW@dynamic(3.3V IO)	347mW@Dynamic
	10bit parallel 30fps	
	220.46 mW@dynamic(3.3V IO)	
	10bit parallel 60fps	
Operation Temp.	336.69 uW@standby (3.3V IO)	70 uW@Standby
	139.13 uW@standby (1.8V IO)	
Package	CSP	CLCC
Status	Developing	MP

QHD IMAGE SENSOR

“High Sensitivity QHD Single Chip Solution”



1080p **PS1400**

Optical Format	1/3 inch
Pixel Size	2.1 um x 2.1 um
Effective Pixel Array	2688(H) x 1520(V)
Output Format	10-bit parallel with bayer 1/2/4 lane MIPI sub-LVDS
Input Clock Frequency	4~27MHz
Frame Rate	60fps@full resolution(4M) 120fps@720p
Sensitivity	TBD
Power Consumption	TBD
Operation Temp.	-40~105 °C
Package	CLCC/ CSP
Status	Developing



HD-ANALOG

IMAGE SENSOR

with embedded PVI transmitter

PV2109(720P)
(Image sensor with ISP)

**HD Analog
Transmitter**

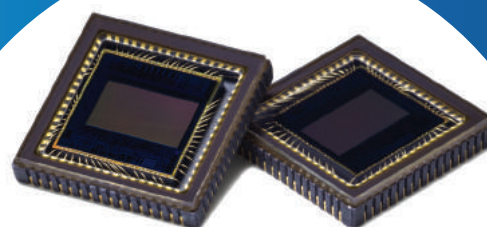
**HD Analog
video**



NEW

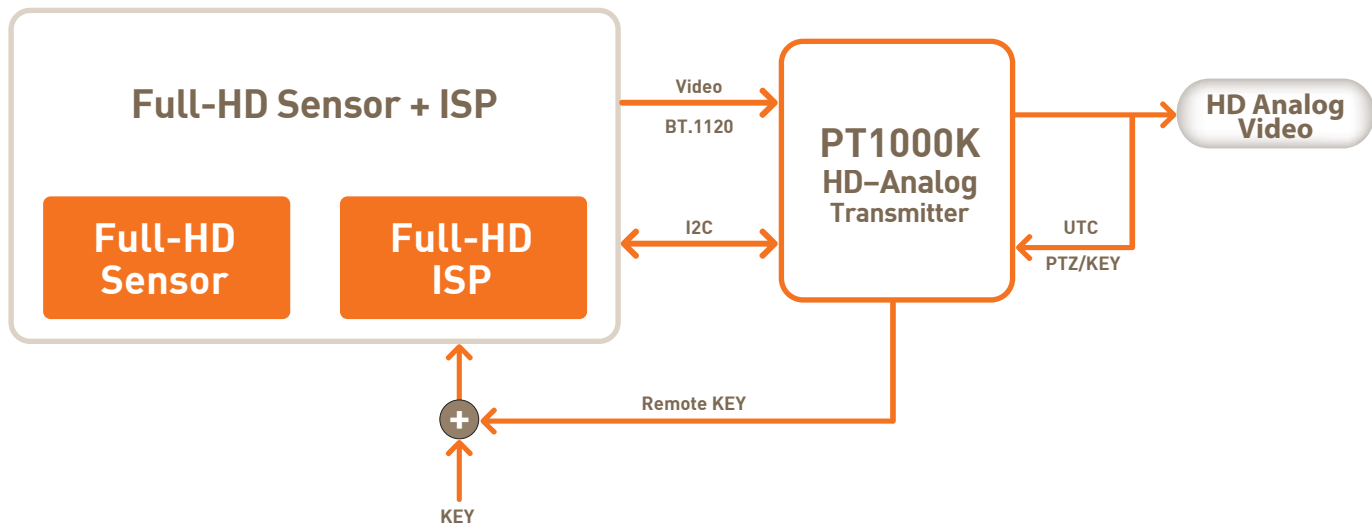
PV2109 720p

Optical Format	1/4 inch
Pixel Size	3.0 um x 3.0 um
Effective Pixel Array	1296(H) x 736(V)
Output Format	16bit/20bit parallel with SMPTE296M 8bit/10bit parallel with YUV422/RGB565/RGB444/Bayer HD-Analog(PVI)
Input Clock Frequency	4~27MHz
Frame Rate	30fps SMPTE296M@74.25 MHz 30fps YUV@74.25 Mhz 30fps PVI(HD-Analog)
Sensitivity	3.5V/Lux/sec
Power Consumption	339 mW @Dynamic(PVI,25fps) 355 mW @Dynamic(PVI,30fps) 3.5 mW @Standby
Operating Temp.	-40~105 °C
Package	CLCC/ CSP
Status	MP



PV2109

HD-ANALOG TRANSMITTER

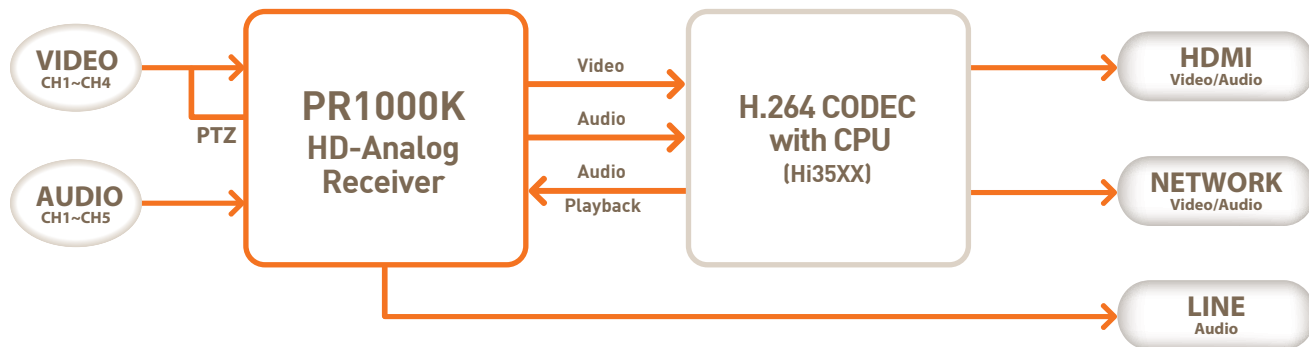


PT1000K

Video Input	BT1120, BT.656 Selectable 8/16Bit
Video Output	All kinds of FHD/HD/SD Analog Video standards Single-end or Differential Analog Output Fully Programmable Video Timing and Level
Video Resolution	720p25/30/50/60, 1080p25/30, 480i60, 576i50
Pattern Generator	Color Bar, H/V Sweep, Cross Hatch
UTC Interface	Bi-Directional Communication Flexible Protocol Remote Camera Function Key
High Speed Video DAC	2X Over-Sampling with Low Jitter Clock
Host Interface	2-Wire Serial Interface (I2C)
Power Consumption	0.26W
Package Type	48 Pin QFN



HD-ANALOG RECEIVER



PR1000K

Video Input

All kinds of FHD/HD/SD Analog Video standards
COAX and UTP Cable Direct Interface
Cable Equalizer for Long Reach DVR

Video Output

Four Ports with Arbitrary Video Scaler
SDR/DDR(Single and Double Data Rate)

Video Resolution

480i60, 576i50, 720p25/30/50/60, 1080p25/30

Audio Input

5xLine and 1xI2S Interface

Audio Output

1xLine and 1xI2S Interface
Linear PCM and u-Law/a-Law PCM
Multi-Chip Cascade Connection

PTZ Control

Bi-Directional Communication
Flexible Protocol

Tampering Detection

Motion, Blockage and Defocus Detection

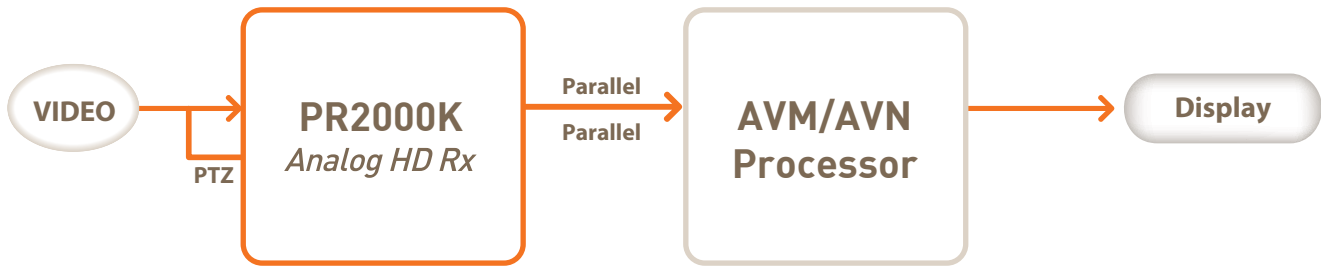
Power Consumption

1.4W

Package Type

128 TQFP

HD-ANALOG RECEIVER



PR2000K

Video Input

HD-PVI, HD-CVI, HDT, HAD, NTSC/PAL
-480i60, 576i50, 720p25/30/50/60, 960p25/30, 1080p25/30
COAX and UTP Cable Direct Interface
Cable Equalizer for Long Reach System

Video Output

Parallel Output Configuration
-BT.1120/BT.656 Standard
-Multi-CH Time-Multiplexed Output with Cascaded Connection
MIPI-CS12 Data Lane Configuration
-YUV422 8Bit Format
-2/4 Lanes for 720p25/30
-4 Lanes for 720p50/60, 960p25/30, 1080p25/30

PTZ Control

Bi-Directional Communication
-Flexible Protocol

Graphic Overlay

Dynamic Parking Guide Line or OSG Overlay

Host Interface

I2C Serial Interface

Power Consumption

320mW for parallel Output / 250mW for MIPI Output

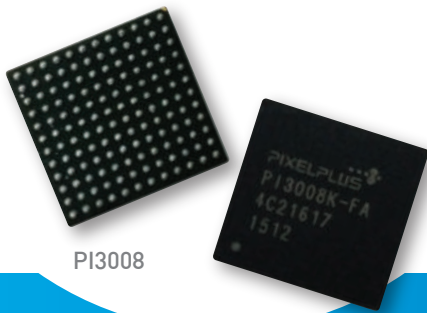
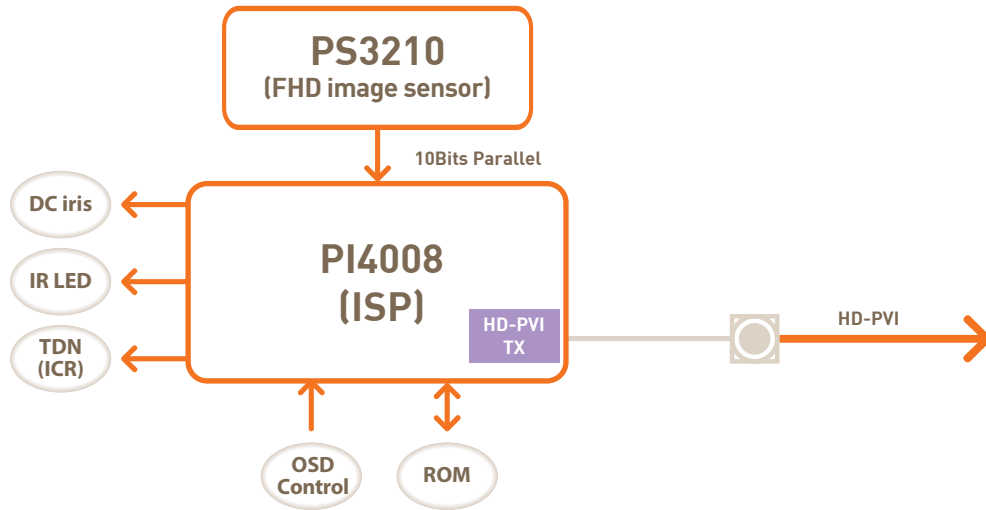
Temperature

-40~105 °C

Package Type

40 eQFN(5mm x 5mm)

COMPANION CHIP



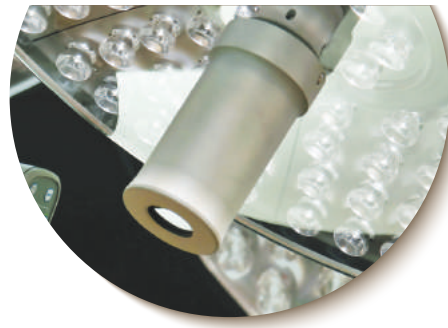
PI3008

PI3008
FHD ISP with LDC Function

NEW **PI4008**
FHD ISP with Multi standard Tx

Resolution/Performance	Upto FHD(1920*1080)@30fps
Input	RGB Bayer (12bits) YUV 10bits (BT601, BT656, BT1302)
Output	CVBS (720H/960H) YUV 8/16bits (HD/FHD)
Function	Image Signal Processing - Bayer Prefilter - 2/3D DNR - Gamma Correction - Hue/Saturation Control - Edge Enhancement Lens Distortion Correction Video Mixer (5 Plane) CPU (Upto 133Mhz)
Interface	2 UART / 2 I2C / 1 SPI 3 PWM / 8 GPIO
Power	Core : 1.2V / IO1 : 1.8V / IO2 : 3.3V
Packages	TA : 144 pin FBGA (10mm*10mm) HA : 121 pin FBGA (8mm*8mm)
Status	MP

Resolution/Performance	Up to FHD(1920*1080)@30fps
Input	RGB Bayer(10bits)@MIPI Interface 1ch(2/4 lane) RGB Bayer(10bits)@Parallel
Output	Analog HD Output - Up to 1920x1080p @ 30fps - Video DAC with 10bit, UTC Digital Output - BT.1120 16Bbit+Sync - BT.656+Sync
Function	Image Signal Processing - 2DNR - Gamma Correction - Hue/Saturation Control - Edge Enhancement Video Mixer(Font/RLE Layer)
Interface	1 UART/2 I2C/1 SPI
Power	Core : 1.2V / IO1 : 1.8V / IO2 : 3.3V
Packages	48 pins QFN (6mm*6mm)
Status	MP

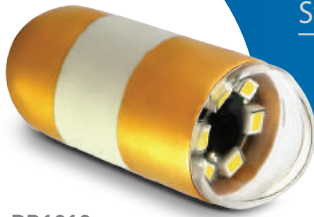


MEDICAL SENSOR

PD1010

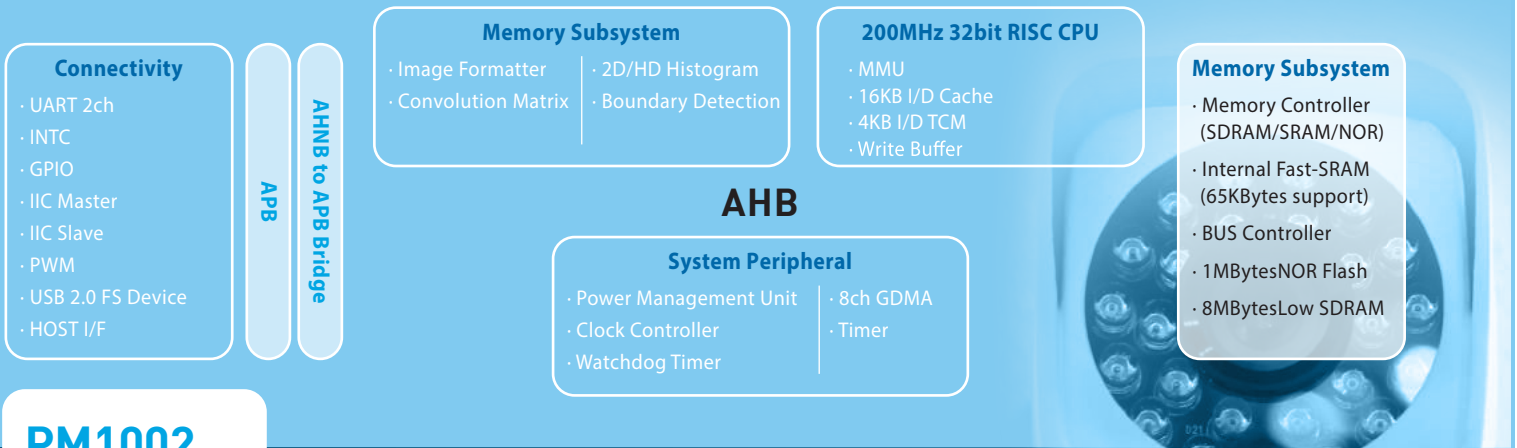
PD2010

Optical Format	1/7 inch	1/7 inch
Pixel Size	5.6 um x 5.6 um	5.6 um x 5.6 um
Effective Pixel Array	320 x 320	320 x 320
Output Format	Raw Bayer	Raw Bayer
Frame Rate	< 2.5fps	4.62fps ~ 18.47fps
Package	CSP	CSP
Status	MP	MP



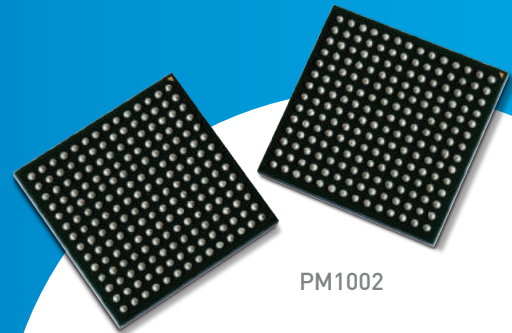
PD1010

SYSTEM ON A CHIP



PM1002

Input Clock Frequency	27MHz
Architecture CPU	32Bit RISC 200MHz
Memory	MCP PKG [NOR 1M/4M SDRAM 8M]
Package	BGA
Status	MP

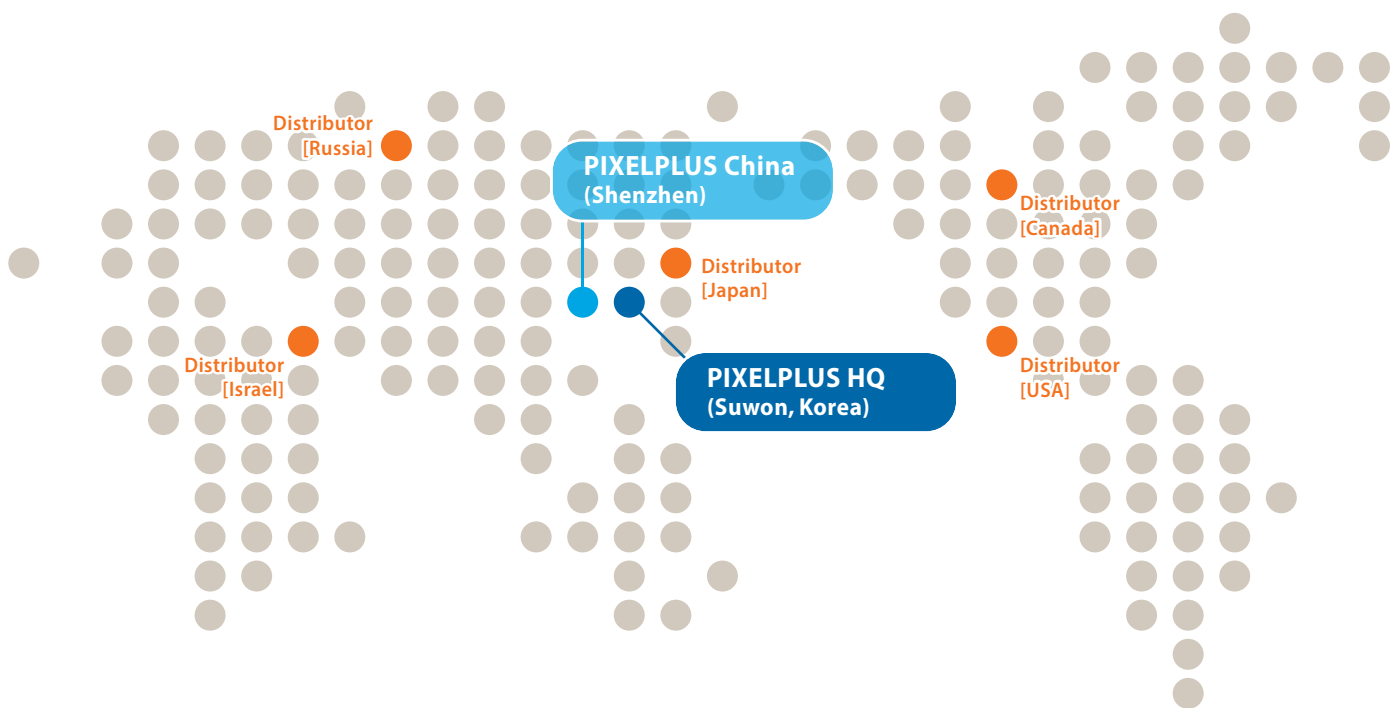


PM1002

APPLICATIONS

- / Biometric Solution / PDA / Fingerprint Modules /
- / Facial Recognition / IRIS Recognition / Pattern Recognition /

GLOBAL NETWORK



PIXELPLUS Co., Ltd. [Korea]

6th Floor, 105, Gwanggyo-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 443-270, Korea
Tel 82-31-888-5300 / Fax 82-31-888-5399 / E-mail korea_sales@pixelplus.com

PIXELPLUS Shenzhen Branch [China]

Room 9C, JinRun Building, No.6019 Shen Nan Road, Fu Tian District, ShenZhen, 518040, China
Tel 86-755-8204-4136 / Fax 86-755-8204-4155 / E-mail china_sales@pixelplus.com

Crystal Image through
Imaging **Innovation**


PIXELPLUS
www.pixelplus.com