

# Digital Video Decoders

## for general applications

DEVICE	Recommended for New Designs						
	SAA7111A	SAA7114	SAA7113 SAF7113	SAA7115 SAA7115A	SAA7118 SAF7118	SAA7119 SAA7117A	SAA7144
<b>Clock:</b>							
Sample Rate	ITU-601	ITU-601	ITU-601	2x ITU-601	2x ITU-601	4x ITU-601	ITU-601
Real-Time Control (RTC)	•	•	•	•	•	•	
Audio Clock		Field Locked		Frame, Field Locked	Field Locked	Frame, Field Locked	
<b>Input:</b>							
Analog Inputs	4	6	4	6	16	16	4 x 2
Analog-to-Digital Converters (ADCs)	2	2	2	2 Low Noise	4 Low Noise	4 Studio Quality	4 x 1
ADC Resolution	8-bit	9-bit	9-bit	9-bit, Over-Sampled	9-bit, Over-Sampled	10-bit, Over-Sampled	9-bit
Analog RGB/YPbPr Component Video Input					•	Including 480p/576p	
SCART Support					•	Enhanced	
D-Connector Support						•	
<b>Video Standards:</b>							
NTSC/PAL/SECAM	•	•	•	•	•	•	•
Standard Detection	•	•	•	Fully Automatic	Fully Automatic	Enhanced Fully Automatic Including HD	•
<b>Feature Processing:</b>							
Adaptive 2/4-Line NTSC/PAL Comb Filter		•		Enhanced Super- Adaptive	•	Enhanced Super- Adaptive	
Universal VBI Data Slicer	CC only	•	•	Including CGMS, Gemstar	•	Including CGMS, Gemstar (Progressive)	•
I <sup>2</sup> C VBI Read Back	•			•		•	
Analog OSD Insertion						•	
Square Pixel Output Rate				Optional		Optional	
Fast Field Lock		•		•	•	•	
AGC Read Back						•	
Automatic VCR Detection and Super Synchronization				•		Enhanced	
High End Picture Improvement Techniques						•	
Four decoders in one package (Quad)							•
<b>Scaler:</b>							
Pixel Accurate H/V Scaler		•		SAA7115	•	SAA7119	
<b>Output:</b>							
Color Format	YUV, 16/24-bit RGB	YUV	YUV	YUV, Including 10-bit	YUV	YUV, Including 10-bit	YUV
Output Port	8-bit 12/16-bit	8-bit 16-bit	8-bit	8-bit 16-bit	8-bit 16-bit	8-bit 16-bit	8-bit
Expansion X-Port		•		•	•	•	

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<b>General:</b>							
Recommended for Surveillance applications		•	•	•			•
Supply Voltage	3.3V	3.3V	3.3V	3.3V	3.3V	1.8V/3.3V	3.3V
I <sup>2</sup> C Status Interrupt Pin					•	Enhanced	
Macrovision Detection		•	•	Enhanced 3-Level	Enhanced 3-Level	Enhanced 3-Level Including HD0	•
Package	QFP64, LQFP64	LQFP100	QFP44	LQFP100	LBGA156, QFP160	LBGA156, QFP160	LQFP128
Pin-to-Pin Compatible		SAA7115 SAA7115A		SAA7114	SAA7119 SAA7117A different supply voltage!	SAA7118 different supply voltage!	
Voltage Compatible		•		•	no	no	
<b>Availability:</b>							
Extended Temp Version			SAF7113		SAF7118		
Status	Production	Production	Production	Production	Production	Production	Production