DOEWE
TEST SOLUTION EXPERT

COMPANY PROFILE

Doewe Technologies, headquartered in Beijing, has been operating for a decade and currently has branches including the Beijing R&D Center, Chengdu R&D Center, Doewe Shanghai, Doewe Shenzhen, and Doewe Hong Kong. The company is fully committed to building its independent brand "Doewe," with its business covering two main categories: Advanced Sensing Measurement and Control (ASMC) and Professional Test and Measurement Solutions (PTMS).

The ASMC product line provides innovative high-precision sensing acquisition and data analytics solutions. PTMS focuses on industry-specific test and measurement solutions for audio, video, and RF applications. It has established the 5XC product system, serving sectors such as transportation, broadcasting, automotive electronics, consumer electronics, and university research institutes.

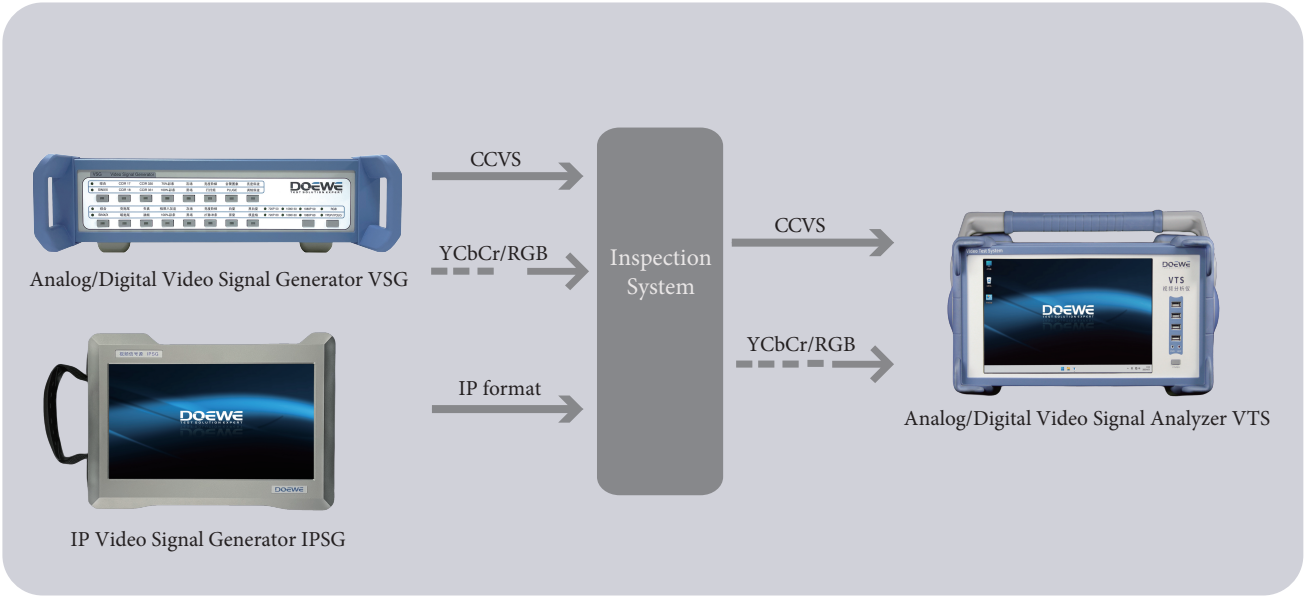
Through relentless effort, several of the company's products have become benchmark test instruments in their respective industries. Doewe Technologies also holds multiple core patents and software copyrights, participates in relevant industry standards working groups, and contributes to the formulation of national and industry standards. Building on past achievements, Doewe continues to increase its R&D investment. We have never forgotten our original aspiration, firmly believing that only profound technological accumulation creates value. We persistently pursue innovation in test and measurement technology, dedicated to technology development, application software services, and research in test and measurement solutions.

Leveraging its Beijing headquarters, related technical centers, and subsidiaries, Doewe Technologies has gradually established a nationwide pre-sales and after-sales service network, providing customers with professional technical consultation. Guided by the principles of "Rigorous, Efficient, Professional, Innovative," Doewe Technologies will continue steadfastly on this path, living up to the trust of every customer.

The journey ahead is long and challenging. We will accompany you on this path of growth to create a new future of technology together.

Function Overview

- Support for composite video (CCVS) / analog HD component (YPbPr) and HDMI output
- Modular design allows for configuration or upgrading as needed
- Multiple standard test patterns, and provide SD/HD comprehensive test charts for highway intersection testing
- Direct button setup for image and format switching, offering convenient operation
- The SD signal supports 720×576 resolution at 50Hz with an aspect ratio of 4:3
- The SD comprehensive test pattern includes CCIR17/18/330/331, 75% color bar, SINX/X, 50% flat field, red field, 15KHz square wave, and blanking line signal, etc
- HD resolution supports 1080i/1080P, and the frame rate supports 50Hz/60Hz
- HD provides comprehensive test patterns including multi-burst, 100% color bars, extreme eight gray scales, white window, black window, black-and-white window, Checker pattern, white field, black field, frame skipping, and trailing test patterns valid for 1080i and 1080P formats

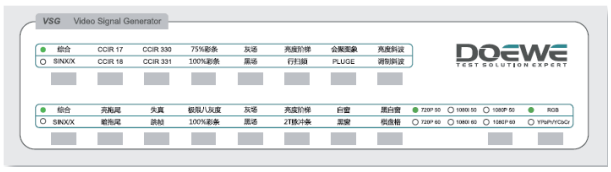


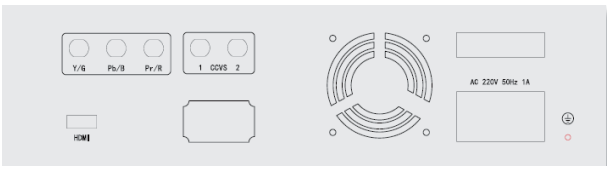
Parameter Indexes

CCVS Signal Indexes

技术参数(中)	Technical Parameters (English)	Value
亮条幅度(视频电平)	Lum Bar Amplitude (abs)	700mV±5mV
同步脉冲幅度	Sync Amplitude (abs)	300mV±5mV
色度/亮度增益差	C/L Gain (pulse)	≤1%
色度/亮度时延差	C/L Delay (pulse)	±15ns
2T脉冲K系数(回波)	2T Pulse k-factor	≤1%
亮度非线性	Lum NL	≤1%
微分增益(DG)	Diff Gain pp	≤0.5%
微分相位(DP)	Diff Phase pp	≤0.5°
Sin x/x幅频响应(正)	Sin x/x Amplitude pos	±1dB
Sin x/x幅频响应(负)	Sin x/x Amplitude neg	±1dB
多波群频响(正)	Multiburst Amplitude pos	±0.5dB
多波群频响(负)	Multiburst Amplitude neg	±0.5dB
亮度加权信噪比	Lum Noise lumw (nom)	≥66dB
色度加权信噪比	Lum Noise chrw (nom)	≥66dB

(Note: When measuring, the video analyzer takes values after 32 times of averaging.)





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Analog High-Definition Component YPbPr Indexes

技术参数(中)	Technical Parameters (English)	Value
Y信号输出幅度误差	Lum Bar Amplitude Y (nom)	±3%
Pb信号输出幅度误差	Lum Bar Amplitude Pb (nom)	±3%
Pr信号输出幅度误差	Lum Bar Amplitude Pr (nom)	±3%
彩条-白-Y幅度	Color Bar White Ampl. Y	700±5mv
彩条-白-Pb幅度	Color Bar White Ampl. Pb	0±5mv
彩条-白-Pr幅度	Color Bar White Ampl. Pr	0±5mv
彩条-黄-Y幅度	Color Bar Yellow Ampl. Y	649.5±5mv
彩条-黄-Pb幅度	Color Bar Yellow Ampl. Pb	-350±5mv
彩条-黄-Pr幅度	Color Bar Yellow Ampl. Pr	32.1±5mv
彩条-青-Y幅度	Color Bar Cyan Ampl. Y	551.2±5mv
彩条-青-Pb幅度	Color Bar Cyan Ampl. Pb	80.2±5mv
彩条-青-Pr幅度	Color Bar Cyan Ampl. Pr	-350±5mv
彩条-绿-Y幅度	Color Bar Green Ampl. Y	500.6±5mv
彩条-绿-Pb幅度	Color Bar Green Ampl. Pb	-269.8±5mv
彩条-绿-Pr幅度	Color Bar Green Ampl. Pr	-317.9±5mv
彩条-紫-Y幅度	Color Bar Magenta Ampl. Y	199.4±5mv
彩条-紫-Pb幅度	Color Bar Magenta Ampl. Pb	269.8±5mv
彩条-紫-Pr幅度	Color Bar Magenta Ampl. Pr	317.9±5mv
彩条-红-Y幅度	Color Bar Red Ampl. Y	148.8±5mv
彩条-红-Pb幅度	Color Bar Red Ampl. Pb	-80.2±5mv
彩条-红-Pr幅度	Color Bar Red Ampl. Pr	350±5mv

Analog High-Definition Component YPbPr Indexes

技术参数(中)	Technical Parameters (English)	Value
彩条-蓝-Y幅度	Color Bar Blue Ampl. Y	50.5±5mv
彩条-蓝-Pb幅度	Color Bar Blue Ampl. Pb	350±5mv
彩条-蓝-Pr幅度	Color Bar Blue Ampl. Pr	-32.1±5mv
彩条-黑-Y幅度	Color Bar Black Ampl. Y	0±5mv
彩条-黑-Pb幅度	Color Bar Black Ampl. Pb	0±5mv
彩条-黑-Pr幅度	Color Bar Black Ampl. Pr	0±5mv
Y/Pb通道时延	Inter Channel Delay (Y - Pb)	±5ns
Y/Pr通道时延	Inter Channel Delay (Y - Pr)	±5ns
Pb/Pr通道时延	Inter Channel Delay (Pb - Pr)	±5ns
Y信号K系数	2T Pulse k-Factor Y	≤1%
Y信号幅频特性(正)	Sin x/x Amplitude pos Y	±2dB
Y信号幅频特性(负)	Sin x/x Amplitude neg Y	±2dB
Y信号加权信噪比	Signal to Noise lumw Y	≥66db
Pb信号加权信噪比	Signal to Noise lumw Pb	≥66db
Pr信号加权信噪比	Signal to Noise lumw Pr	≥66db
Y信号非线性失真	Nonlinearity Y	≤2%
Pb信号非线性失真	Nonlinearity Pb	≤2%
Pr信号非线性失真	Nonlinearity Pr	≤2%

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Analog High-Definition Component RGB Signal Indexes

技术参数(中)	Technical Parameters (English)	Value
G信号输出幅度误差	Lum Bar Amplitude G (nom)	±3%
B信号输出幅度误差	Lum Bar Amplitude B (nom)	±3%
R信号输出幅度误差	Lum Bar Amplitude R (nom)	±3%
彩条-白-G幅度	Color Bar White Ampl. G	700±5mv
彩条-白-B幅度	Color Bar White Ampl. B	700±5mv
彩条-白-R幅度	Color Bar White Ampl. R	700±5mv
彩条-黄-G幅度	Color Bar Yellow Ampl. G	700±5mv
彩条-黄-B幅度	Color Bar Yellow Ampl. B	0±5mv
彩条-黄-R幅度	Color Bar Yellow Ampl. R	700±5mv
彩条-青-G幅度	Color Bar Cyan Ampl. G	700±5mv
彩条-青-B幅度	Color Bar Cyan Ampl. B	700±5mv
彩条-青-R幅度	Color Bar Cyan Ampl. R	0±5mv
彩条-绿-G幅度	Color Bar Green Ampl. G	700±5mv
彩条-绿-B幅度	Color Bar Green Ampl. B	0±5mv
彩条-绿-R幅度	Color Bar Green Ampl. R	0±5mv
彩条-紫-G幅度	Color Bar Magenta Ampl. G	0±5mv
彩条-紫-B幅度	Color Bar Magenta Ampl. B	700±5mv
彩条-紫-R幅度	Color Bar Magenta Ampl. R	700±5mv
彩条-红-G幅度	Color Bar Red Ampl. G	0±5mv
彩条-红-B幅度	Color Bar Red Ampl. B	0±5mv
彩条-红-R幅度	Color Bar Red Ampl. R	700±5mv

Analog High-Definition Component RGB Signal Indexes

技术参数(中)	Technical Parameters (English)	Value
彩条-蓝-G幅度	Color Bar Blue Ampl. G	0±5mv
彩条-蓝-B幅度	Color Bar Blue Ampl. B	700±5mv
彩条-蓝-R幅度	Color Bar Blue Ampl. R	0±5mv
彩条-黑-G幅度	Color Bar Black Ampl. G	0±5mv
彩条-黑-B幅度	Color Bar Black Ampl. B	0±5mv
彩条-黑-R幅度	Color Bar Black Ampl. R	0±5mv
G/B通道时延	Inter Channel Delay (G - B)	±5ns
G/R通道时延	Inter Channel Delay (G - R)	±5ns
B/R通道时延	Inter Channel Delay (B - R)	±5ns
G信号K系数	2T Pulse k-Factor G	≤1%
B信号K系数	2T Pulse k-Factor B	≤1%
R信号K系数	2T Pulse k-Factor R	≤1%
G信号幅频特性(正)	Sin x/x Amplitude pos G	±2dB
B信号幅频特性(正)	Sin x/x Amplitude pos B	±2dB
R信号幅频特性(正)	Sin x/x Amplitude pos R	±2dB
G信号幅频特性(负)	Sin x/x Amplitude neg G	±2dB
B信号幅频特性(负)	Sin x/x Amplitude neg B	±2dB
R信号幅频特性(负)	Sin x/x Amplitude neg R	±2dB
G信号加权信噪比	Signal to Noise lumw G	≥66dB
B信号加权信噪比	Signal to Noise lumw B	≥66dB
R信号加权信噪比	Signal to Noise lumw R	≥66dB
G信号非线性失真	Nonlinearity G	≤2%
B信号非线性失真	Nonlinearity B	≤2%
R信号非线性失真	Nonlinearity R	≤2%

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HDMI YCbCr Signal Indexes

技术参数(中)	Technical Parameters (English)	Value
Y信号输出幅度	Lum Bar Amplitude Y (abs)	3504
Cb信号输出幅度	Lum Bar Amplitude Cb (abs)	1792
Cr信号输出幅度	Lum Bar Amplitude Cr (abs)	1792
Y信号输出幅度误差	Lum Bar Amplitude Y (nom)	±0.5%
Cb信号输出幅度误差	Lum Bar Amplitude Cb (nom)	±0.5%
Cr信号输出幅度误差	Lum Bar Amplitude Cr (nom)	±0.5%
彩条-白-Y幅度	Color Bar White Ampl. Y	3504
彩条-白-Cb幅度	Color Bar White Ampl. Cb	0
彩条-白-Cr幅度	Color Bar White Ampl. Cr	0
彩条-黄-Y幅度	Color Bar Yellow Ampl. Y	3248
彩条-黄-Cb幅度	Color Bar Yellow Ampl. Cb	-1744
彩条-黄-Cr幅度	Color Bar Yellow Ampl. Cr	160
彩条-青-Y幅度	Color Bar Cyan Ampl. Y	2752
彩条-青-Cb幅度	Color Bar Cyan Ampl. Cb	400
彩条-青-Cr幅度	Color Bar Cyan Ampl. Cr	-1744
彩条-绿-Y幅度	Color Bar Green Ampl. Y	2496
彩条-绿-Cb幅度	Color Bar Green Ampl. Cb	-1344
彩条-绿-Cr幅度	Color Bar Green Ampl. Cr	-1584
彩条-紫-Y幅度	Color Bar Magenta Ampl. Y	992
彩条-紫-Cb幅度	Color Bar Magenta Ampl. Cb	1360
彩条-紫-Cr幅度	Color Bar Magenta Ampl. Cr	1600
彩条-红-Y幅度	Color Bar Red Ampl. Y	736
彩条-红-Cb幅度	Color Bar Red Ampl. Cb	-400
彩条-红-Cr幅度	Color Bar Red Ampl. Cr	1760

HDMI YCbCr Signal Indexes

技术参数(中)	TechnicalParameters(English)	Value
彩条-蓝-Y幅度	Color Bar Blue Ampl. Y	256
彩条-蓝-Cb幅度	Color Bar Blue Ampl. Cb	1760
彩条-蓝-Cr幅度	Color Bar Blue Ampl. Cr	-160
彩条-黑-Y幅度	Color Bar Black Ampl. Y	0
彩条-黑-Cb幅度	Color Bar Black Ampl. Cb	0
彩条-黑-Cr幅度	Color Bar Black Ampl. Cr	0
Y/Cb通道时延	Inter Channel Delay (Y - Cb)	±2ns
Y/Cr通道时延	Inter Channel Delay (Y - Cr)	±2ns
Cb/Cr通道时延	Inter Channel Delay (Cb - Cr)	±2ns
Y信号K系数	2T Pulse k-Factor Y	≤1%
Cb信号K系数	2T Pulse k-Factor Cb	≤1%
Cr信号K系数	2T Pulse k-Factor Cr	≤1%
Y信号幅频特性(正)	Sin x/x Amplitude pos Y	±1dB
Cb信号幅频特性(正)	Sin x/x Amplitude pos Cb	±1dB
Cr信号幅频特性(正)	Sin x/x Amplitude pos Cr	±1dB
Y信号幅频特性(负)	Sin x/x Amplitude neg Y	±1dB
Cb信号幅频特性(负)	Sin x/x Amplitude neg Cb	±1dB
Cr信号幅频特性(负)	Sin x/x Amplitude neg Cr	±1dB
Y信号加权信噪比	Signal to Noise lumw Y	≥99.9db
Cb信号加权信噪比	Signal to Noise lumw Cb	≥99.9db
Cr信号加权信噪比	Signal to Noise lumw Cr	≥99.9db
Y信号非线性失真	Nonlinearity Y	≤1%
Cb信号非线性失真	Nonlinearity Cb	≤1%
Cr信号非线性失真	Nonlinearity Cr	≤1%

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HDMI RGB Signal Indexes

技术参数(中)	Technical Parameters (English)	Value
G信号输出幅度	Lum Bar Amplitude G (abs)	3504
B信号输出幅度	Lum Bar Amplitude B (abs)	3504
R信号输出幅度	Lum Bar Amplitude R (abs)	3504
G信号输出幅度误差	Lum Bar Amplitude G (nom)	±0.5%
B信号输出幅度误差	Lum Bar Amplitude B (nom)	±0.5%
R信号输出幅度误差	Lum Bar Amplitude R (nom)	±0.5%
彩条-白-G幅度	Color Bar White Ampl. G	3504
彩条-白-B幅度	Color Bar White Ampl. B	3504
彩条-白-R幅度	Color Bar White Ampl. R	3504
彩条-黄-G幅度	Color Bar Yellow Ampl. G	3504
彩条-黄-B幅度	Color Bar Yellow Ampl. B	0
彩条-黄-R幅度	Color Bar Yellow Ampl. R	3504
彩条-青-G幅度	Color Bar Cyan Ampl. G	3504
彩条-青-B幅度	Color Bar Cyan Ampl. B	3504
彩条-青-R幅度	Color Bar Cyan Ampl. R	0
彩条-绿-G幅度	Color Bar Green Ampl. G	3504
彩条-绿-B幅度	Color Bar Green Ampl. B	0
彩条-绿-R幅度	Color Bar Green Ampl. R	0
彩条-紫-G幅度	Color Bar Magenta Ampl. G	0
彩条-紫-B幅度	Color Bar Magenta Ampl. B	3504
彩条-紫-R幅度	Color Bar Magenta Ampl. R	3504
彩条-红-G幅度	Color Bar Red Ampl. G	0
彩条-红-B幅度	Color Bar Red Ampl. B	0
彩条-红-R幅度	Color Bar Red Ampl. R	3504

HDMI RGB Signal Indexes

技术参数(中)	Technical Parameters (English)	Value
彩条-蓝-G幅度	Color Bar Blue Ampl. G	0
彩条-蓝-B幅度	Color Bar Blue Ampl. B	3504
彩条-蓝-R幅度	Color Bar Blue Ampl. R	0
彩条-黑-G幅度	Color Bar Black Ampl. G	0
彩条-黑-B幅度	Color Bar Black Ampl. B	0
彩条-黑-R幅度	Color Bar Black Ampl. R	0
G/B通道时延	Inter Channel Delay (G - B)	±2ns
G/R通道时延	Inter Channel Delay (G - R)	±2ns
B/R通道时延	Inter Channel Delay (B - R)	±2ns
G信号K系数	2T Pulse k-Factor G	≤1%
B信号K系数	2T Pulse k-Factor B	≤1%
R信号K系数	2T Pulse k-Factor R	≤1%
G信号幅频特性(正)	Sin x/x Amplitude pos G	±1dB
B信号幅频特性(正)	Sin x/x Amplitude pos B	±1dB
R信号幅频特性(正)	Sin x/x Amplitude pos R	±1dB
G信号幅频特性(负)	Sin x/x Amplitude neg G	±1dB
B信号幅频特性(负)	Sin x/x Amplitude neg B	±1dB
R信号幅频特性(负)	Sin x/x Amplitude neg R	±1dB
G信号加权信噪比	Signal to Noise lumw G	≥99.9db
B信号加权信噪比	Signal to Noise lumw B	≥99.9db
R信号加权信噪比	Signal to Noise lumw R	≥99.9db
G信号非线性失真	Nonlinearity G	≤1%
B信号非线性失真	Nonlinearity B	≤1%
R信号非线性失真	Nonlinearity R	≤1%

CCVS Panel Key Instructions

Composite Signal	CCIR17	CCIR330	75% color bars	Gray field	Lum Steps	Conv. Images	Bri. Ramp
Meet the test req., and the ind. are shown in the composite video technical ind..	Compared with the corresponding signals in the composite signal, it is a full - field signal, and it exists in both the positive and reverse processes.						
SINX/X	CCIR18	CCIR331	100% color bars	Black field	Line Sweep Freq.	PLUGE	Mod. Ramp
	Compared with the corresponding signals in the composite signal, it is a full - field signal, and it exists in both the positive and reverse processes.						

(Signal Format: PAL/576i, aspect ratio is 4:3)

Key Instructions for High-Definition Video Panel

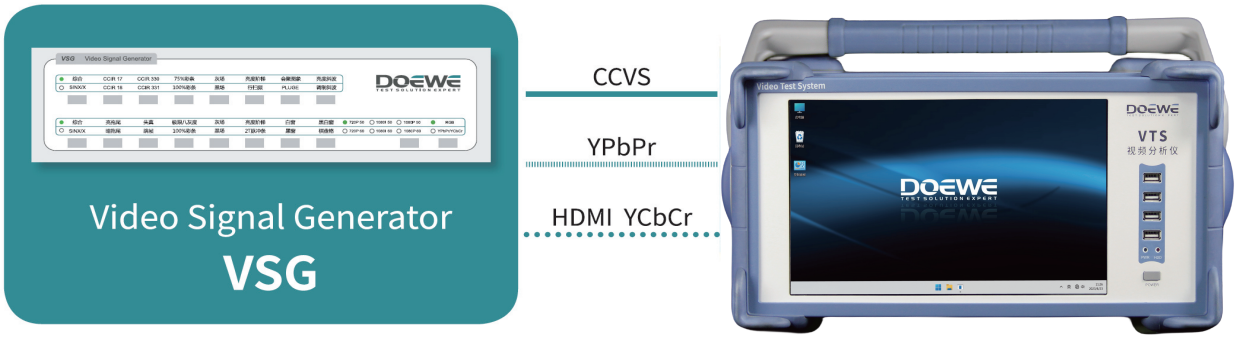
Composite Signal	Bright trailing	Distortion	Extreme Eight Grayscales	Gray field	Lum Steps	White Window	Black-White Window
Meet the testing requirements, and the indicators are shown in the component video and HDMI technical specifications.	Subjective Evaluation Use			Compared with the corresponding signals in the composite signal, it is a full - field signal, and it exists in both the positive and reverse processes.		Subjective Evaluation Use	
SINX/X	Dark trailing	frame skipping	100% color bars	Black field	2T Pulse Strip	Black Window	Checker pattern
Compared with the corresponding signals in the composite signal, it is a full - field signal, and it exists in both the positive and reverse processes.	Subjective Evaluation Use		Compared with the corresponding signals in the composite signal, it is a full - field signal, and it exists in both the positive and reverse processes.			Subjective Evaluation Use	

(1080i and 1080P signals are standard test signals, 720P signal is only used for subjective evaluation, aspect ratio is 16:9)

The typical test parameters for traffic video transmission

Standard-Definition Analog Composite Video Test

Test content	Ref. Index	Test Method	VSG Test Plan	Func. Imp. Ratio
Video Level	700±30mv	The signal generator sends out a 75% color bar signal or a 2T sine-squared wave and bar pulse signal, which is measured by a video tester.	VSG playback of CCVS comprehensive test patterns enables automatic testing. Select 2T sine squared wave and bar pulse signals.	100%
Sync. Pulse Amp.	300±20mV	The signal generator transmits a 75% color bar signal or a 2T sine-squared wave and bar pulse signal, which is measured by a video tester.	VSG playback of CCVS comprehensive test patterns enables automatic testing. Select 2T sine squared wave and bar pulse signals.	100%
Echo	＜7%	The signal generator sends out 2T sinusoidal squared waves and bar pulse signals, which is measured by a video tester.	VSG playback of CCVS comprehensive test patterns enables automatic testing. Select 2T sine squared wave and bar pulse signals.	100%
Lum. Nonlinearity	⩽5%	The signal generator sends out an unmodulated five-step ladder signal, which is measured by a video tester.	The VSG can automatically perform tests by playing the CCVS comprehensive test chart. Select the non-modulated five-step signal.	100%
Chroma./Lum. Gain Difference	±5%	The signal generator sends a 10T signal filled with subcarriers or a bar pulse signal filled with subcarriers, and measures it with a video tester.	The VSG can automatically perform tests by playing the CCVS comprehensive test pattern. A 10T signal filled with sub - carriers is selected.	100%
Chroma./Lum. Delay Difference	⩽100ns	The signal generator sends a 10T signal filled with subcarriers or a bar pulse signal filled with subcarriers, and measures it with a video tester.	The VSG can automatically perform tests by playing the CCVS comprehensive test pattern. A 10T signal filled with sub - carriers is selected.	100%
Differential Gain	⩽10%	The signal generator sends out an unmodulated five-step ladder signal, which is measured by a video tester.	The VSG can automatically perform tests by playing the CCVS comprehensive test chart. Select the non-modulated five-step signal.	100%
Differential Phase	⩽10°	The signal generator sends out an unmodulated five-step ladder signal, which is measured by a video tester.	The VSG can automatically perform tests by playing the CCVS comprehensive test chart. Select the non-modulated five-step signal.	100%
Amp.-Freq. Characteristics (within a 5.8MHz bandwidth)	±2dB	The signal generator sends out a sinx(x) signal, and the video tester is used for measurement.	The VSG can automatically perform testing by playing the CCVS comprehensive test pattern. It is recommended to select the sinx/x signal.	100%
VSNR (Weighted)	⩾56dB	The signal generator sends a silent line signal, which is measured by a video tester.	The VSG can automatically perform tests by playing the CCVS comprehensive test pattern, and silent line signals are selected.	100%

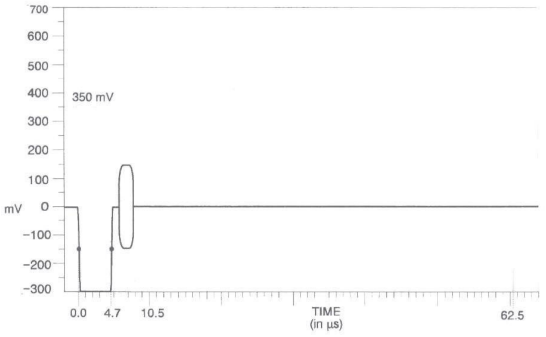


DOEWE TEST SOLUTION EXPERT

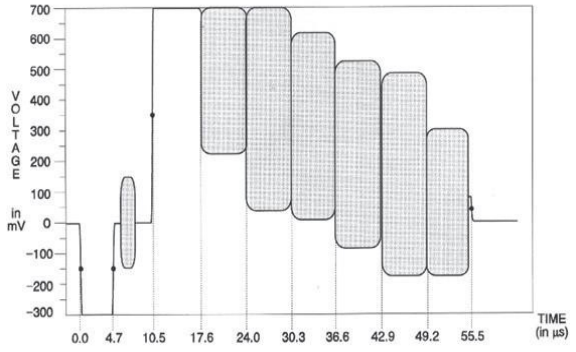
High-Definition Y/Pb(Cb)/Pr(Cr) Video Test

Test content	Ref. Index	Test Method	VSG Test Plan	Func. Imp. Ratio
Y signal output amplitude error	-10~+10%	The digital signal generator sends high-definition 2T pulse and bar signals, which are measured by a digital video tester.	When the VSG plays the YPbPr or HDMI comprehensive test pattern, it can automatically conduct the test. Select the 2T pulse and bar signal.	100%
Cr(Pr) signal output amplitude error	-10~+10%	The digital signal generator sends high-definition 2T pulse and bar signals, which are measured by a digital video tester.	When the VSG plays the YPbPr or HDMI comprehensive test pattern, it can automatically conduct the test. Select the 2T pulse and bar signal.	100%
Cb(Pb) signal output amplitude error	-10~+10%	The digital signal generator sends high-definition 2T pulse and bar signals, which are measured by a digital video tester.	When the VSG plays the YPbPr or HDMI comprehensive test pattern, it can automatically conduct the test. Select the 2T pulse and bar signal.	100%
Ampl. - freq. characteristic of Y signal	Within a 30 MHz BW ±3dB	The digital signal generator sends high-definition multi-burst signals or SinX/X signals, which are measured by a digital video tester.	When the VSG plays the YPbPr or HDMI comprehensive test pattern, it can automatically perform the test. Select the high-definition SinX/X signal.	100%
The non-linear distortion of Y, Cb (Pb), and Cr (Pr) signals	≤5%	The digital signal generator sends out a high-definition five-step wave signal, which is measured by a digital video tester.	When the VSG plays the YPbPr or HDMI comprehensive test pattern, it can automatically perform the test. Select the five-step wave signal.	100%
Linear Response of the Lum. Channel (K - factor of Y signal)	≤3%	The digital signal generator sends high-definition 2T pulse and bar signals, which are measured by a digital video tester.	When the VSG plays the YPbPr or HDMI comprehensive test pattern, it can automatically conduct the test. Select the 2T pulse and bar signal.	100%
Time Delay Difference ofY/Cb (Y/Pb) and Y/Cr (Y/Pr) Signals	±10ns	The digital signal generator sends out high-definition color bar signals, which are measured by a digital video tester.	When the VSG plays the YPbPr or HDMI comprehensive test pattern, it can automatically conduct the test. Select the high - definition color bar signal.	100%
The weighted SNR of Y, Cb (Pb), and Cr (Pr) signals	≥56dB	The digital signal generator sends silent line signals, which are measured by a digital video tester.	When the VSG plays the YPbPr or HDMI comprehensive test pattern, it can automatically perform the test. Select the silent line signal.	100%
G signal output amplitude error	-10~+10%	The digital signal generator sends high-definition 2T pulse and bar signals, which are measured by a digital video tester.	When the VSG plays the YPbPr or HDMI comprehensive test pattern, it can automatically conduct the test. Select the 2T pulse and bar signal.	100%
B signal output amplitude error	-10~+10%	The digital signal generator sends high-definition 2T pulse and bar signals, which are measured by a digital video tester.	When the VSG plays the YPbPr or HDMI comprehensive test pattern, it can automatically conduct the test. Select the 2T pulse and bar signal.	100%
R signal output amplitude error	-10~+10%	The digital signal generator sends high-definition 2T pulse and bar signals, which are measured by a digital video tester.	When the VSG plays the YPbPr or HDMI comprehensive test pattern, it can automatically conduct the test. Select the 2T pulse and bar signal.	100%
Ampl. - freq. characteristic of G/B/R signal	Within a 30 MHz BW ±3dB	The digital signal generator sends high-definition multi-burst signals or SinX/X signals, which are measured by a digital video tester.	When the VSG plays the YPbPr or HDMI comprehensive test pattern, it can automatically perform the test. Select the high-definition SinX/X signal.	100%
The non-linear distortion of G, B, R signals	≤5%	The digital signal generator sends out a high-definition five-step wave signal, which is measured by a digital video tester.	When the VSG plays the YPbPr or HDMI comprehensive test pattern, it can automatically perform the test. Select the five-step wave signal.	100%
Linear Response of the Lum. Channel (K - factor of G、B、R signals)	≤3%	The digital signal generator sends high-definition 2T pulse and bar signals, which are measured by a digital video tester.	When the VSG plays the YPbPr or HDMI comprehensive test pattern, it can automatically conduct the test. Select the 2T pulse and bar signal.	100%
Time Delay Difference of G/B、G/R、B/R Signals	±10ns	The digital signal generator sends out high-definition color bar signals, which are measured by a digital video tester.	When the VSG plays the YPbPr or HDMI comprehensive test pattern, it can automatically conduct the test. Select the high - definition color bar signal.	100%
The weighted SNR of G、B、R signals	≥56dB	The digital signal generator sends silent line signals, which are measured by a digital video tester.	When the VSG plays the YPbPr or HDMI comprehensive test pattern, it can automatically perform the test. Select the silent line signal.	100%

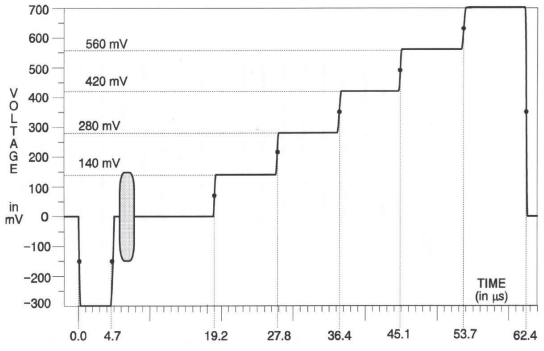
The typical signal schematic diagram of CCVS



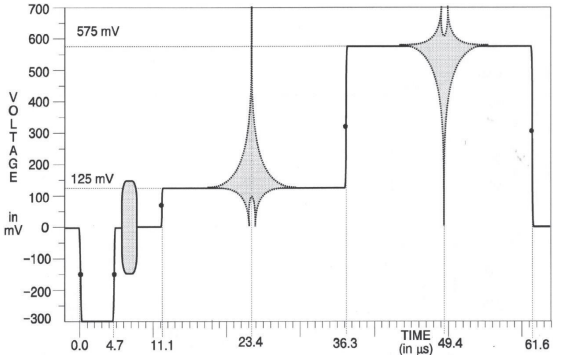
silent line



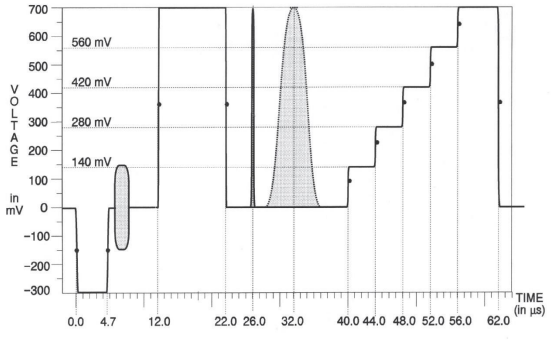
75% color bars



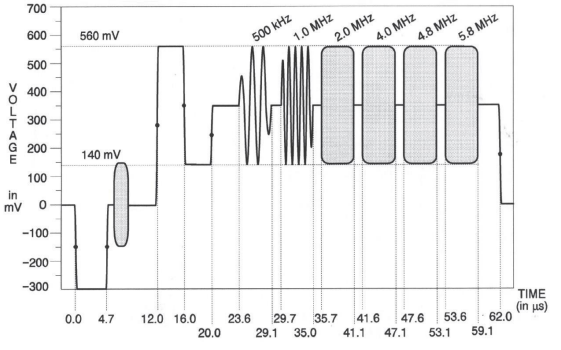
Lum Steps



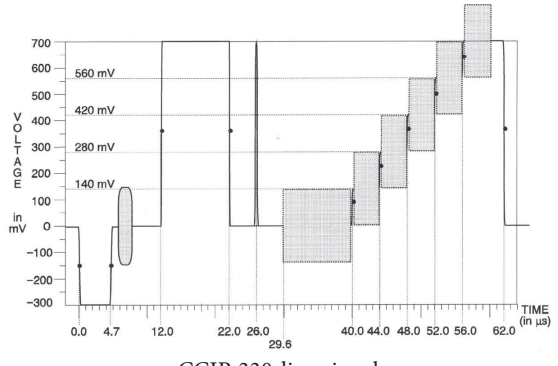
Sinx/x signal



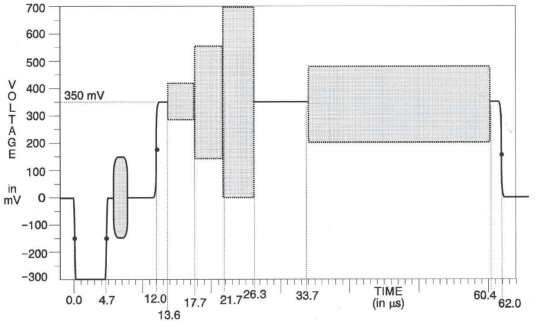
CCIR 17-line signal



CCIR 18-line signal



CCIR 330-line signal



CCIR 331-line signal

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Schematic Diagram of Typical HD Signals

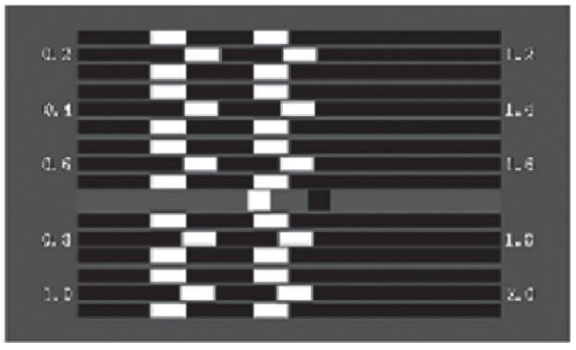
Multi-wave group

100% color bars

Extreme Eight Grayscales

White Field Signal

Black Field Signal



Tail Test

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