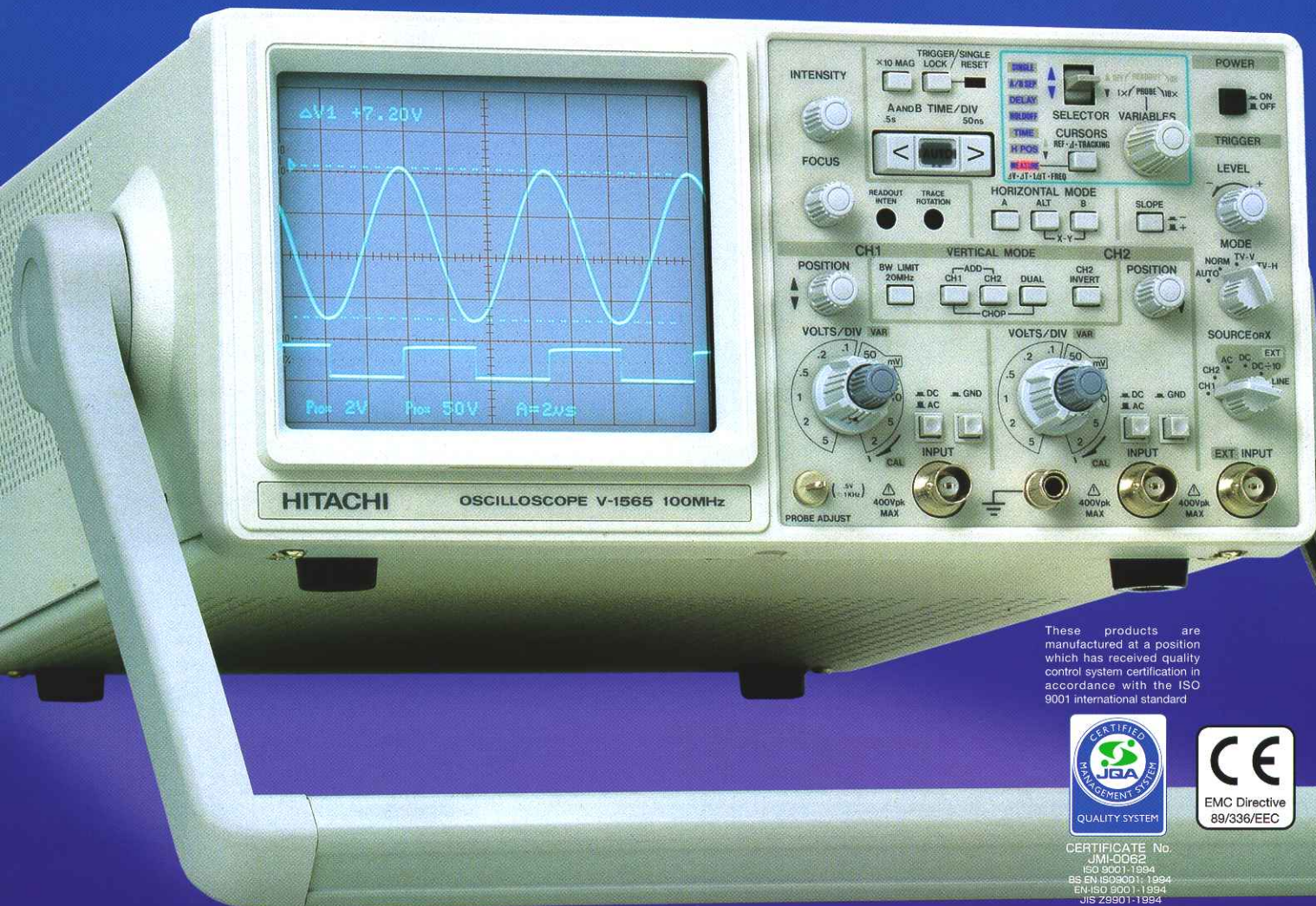


New Basic RTO

Analog Real-time Oscilloscopes

— Easy Operation, Compact, Quality, Reliability and Performance —

- V-1585** DC to 100MHz, 4 Channels, Delayed sweep, Cursor measurements, Frequency counter
- V-1565** DC to 100MHz, 2 Channels, Delayed sweep, Cursor measurements, Frequency counter
- V-1560** DC to 100MHz, 2 Channels, Delayed sweep
- V-695** DC to 60MHz, 2 Channels, Delayed sweep, Cursor measurements, Frequency counter
- V-555** DC to 50MHz, 2 Channels, Cursor Measurements, DC offset, Alternate magnification
- V-552** DC to 50MHz, 2 Channels, DC offset, Alternate magnification
- V-252** DC to 20MHz, 2 Channels



These products are manufactured at a position which has received quality control system certification in accordance with the ISO 9001 international standard



CERTIFICATE No.
JMI-0062
ISO 9001-1994
BS EN ISO 9001:1994
EN ISO 9001-1994
JIS Z9901-1994

Specifications

V-1585		V-1565/1560/695																								
CRT																										
Size	6-inch rectangular																									
Graticule	internal graticule, 8×10div (1div=1cm) with 0%, 10%, 90%, 100% marks																									
Acceleration potential	17kV	V-1565/1560: 17kV	V-695: 12kV																							
Focus control	Auto focus																									
Z-axis input	Sensitivity: at least 5Vp-p Frequency range: DC to 5MHz Polarity: positive input decreases intensity Max. input voltage: 30Vp-p (DC+ACpeak, at 1kHz)																									
VERTICAL SYSTEM																										
Sensitivity and accuracy	CH1, CH2: 2mV/div to 5V/div ±2% in 11 calibrated steps Continuously variable control between steps at least 1:2.5 CH3, CH4: 0.1V/div, 0.5V/div ±3%	2mV/div to 5V/div ±2% in 11 calibrated steps Continuously variable control between steps at least 1:2.5																								
Bandwidth	DC to 100MHz (2mV/div: DC to 20MHz)	V-1565/1560: DC to 100MHz (2mV/div: DC to 20MHz) V-695: DC to 60MHz (2mV/div: DC to 10MHz)																								
Rise time	approx. 3.5ns (2mV/div: approx. 17.5ns)	V-1565/1560: approx. 3.5ns (2mV/div: approx. 17.5ns) V-1565: approx. 5.8ns (2mV/div: approx. 35ns)																								
Bandwidth limiter	20MHz	V-1565/1560: 20MHz V-695: 10MHz																								
Input impedance	1MΩ ±1.5%, 23pF ±3pF																									
Max. input voltage	400V (DC+ACpeak, at 1kHz)																									
Input coupling	CH1, CH2: AC, GND, DC CH3, CH4: AC, DC	AC, GND, DC																								
Signal delay	Leading edge can be monitored																									
CMRR	between CH1 and CH2: at least 20dB at 20MHz	V-1565/1560: at least 20dB at 20MHz V-695: at least 20dB at 10MHz																								
Display Mode	CH1, CH2, DUAL, CHOP (approx. 250kHz), ADD, QUAD	CH1, CH2, DUAL, CHOP (approx. 250kHz), ADD																								
Polarity invert	CH2 only																									
HORIZONTAL SYSTEM																										
Sweep time	A (main) sweep: 50ns/div to 0.5s/div B (delayed) sweep: 50ns/div to 50ms/div																									
Accuracy	±3%																									
Magnification	10 times (±4%)																									
Max. sweep rate	5ns/div																									
Sweep mode	A, ALT, B																									
Sweep time autoranging	Provided																									
Delay time	1μs to 5s																									
Delay jitter	1/20,000 or less																									
TRIGGER SYSTEM																										
Trigger mode	A trigger: AUTO, NORM, TV-V, TV-H, SINGLE B trigger: AUTO, NORM (trigger source interlocked A)	AUTO, NORM, TV-V, TV-H, SINGLE																								
Trigger source	CH1, CH2, CH3, CH4, ALT(CH1/CH2), LINE	INT (CH1, CH2), LINE, EXT (AC, DC, DC ÷10)																								
Trigger slope	+, -																									
Auto trigger level	Variable rage automatically changes corresponding with input signal amplitude																									
EXT trigger input	not provided	input impedance: 1MΩ ±5%, 25pF ±6pF Max. input voltage: 400V (DC+ACpeak, at 1kHz)																								
Trigger sensitivity	<table border="1"> <thead> <tr> <th></th> <th>CH1, CH2</th> <th>CH3, CH4</th> </tr> </thead> <tbody> <tr> <td>DC to 20MHz</td> <td>0.35div</td> <td>0.5div</td> </tr> <tr> <td>20MHz to 100MHz</td> <td>1.5div</td> <td>1.5div</td> </tr> </tbody> </table> in NORM trigger mode		CH1, CH2	CH3, CH4	DC to 20MHz	0.35div	0.5div	20MHz to 100MHz	1.5div	1.5div	<table border="1"> <thead> <tr> <th></th> <th>V-1565/1560</th> <th>V-695</th> <th>INT</th> <th>EXT</th> </tr> </thead> <tbody> <tr> <td>DC to 20MHz</td> <td></td> <td>DC to 10MHz</td> <td>0.35div</td> <td>50mV</td> </tr> <tr> <td>20MHz to 100MHz</td> <td>10MHz to 60MHz</td> <td></td> <td>1.5div</td> <td>150mV</td> </tr> </tbody> </table> in NORM trigger mode		V-1565/1560	V-695	INT	EXT	DC to 20MHz		DC to 10MHz	0.35div	50mV	20MHz to 100MHz	10MHz to 60MHz		1.5div	150mV
	CH1, CH2	CH3, CH4																								
DC to 20MHz	0.35div	0.5div																								
20MHz to 100MHz	1.5div	1.5div																								
	V-1565/1560	V-695	INT	EXT																						
DC to 20MHz		DC to 10MHz	0.35div	50mV																						
20MHz to 100MHz	10MHz to 60MHz		1.5div	150mV																						
TV trigger sensitivity	Sync pulse more than 1div	INT: Sync pulse more than 1div EXT: Sync pulse more than 200mV																								
Holdoff time	Variable																									
Trigger lock	Sum of the holdoff time and sweep time is held constant																									
X-Y OPERATION																										
X-axis input	Selectable CH1, CH2, CH3, CH4	Selectable CH1, CH2, EXT																								
Y-axis input	Selectable CH1, CH2, CH1&CH2																									
X-axis sensitivity	CH1, CH2: 2mV/div to 5V/div CH3, CH4: 0.1V/div, 0.5V/div	CH1, CH2: 2mV/div to 5V/div EXT: approx. 0.1V/div, approx. 1V/div																								
Y-axis sensitivity	2mV/div to 5V/div																									
Phase error	3° or less from DC to 50kHz																									
X-axis bandwidth	DC to 500kHz																									
CRT READOUT FUNCTION																										
Setting display	CH1/CH2 sensitivity, A/B sweep time, delay time, holdoff condition	V-1565/695: CH1/CH2 sensitivity, A/B sweep time, delay time, holdoff condition V-1560: A/B sweep time, delay time, holdoff condition																								
Frequency counter	Frequency range: 20Hz to 100MHz No. of digit: 4 digit Accuracy: ±1 resolution ±100ppm	Frequency range: 20Hz to 100MHz (V-1565), 20Hz to 60MHz (V-695) No. of digit: 4 digit Accuracy: ±1 resolution ±100ppm not provided on V-1560																								
Cursor measurements	Voltage difference, time difference, frequency	Voltage difference, time difference, frequency not provided on V-1560																								
OTHERS																										
Signal output	Output channel: Trigger source channel Voltage: Approx. 25mV/div Bandwidth: DC to 10MHz Output impedance: approx 50Ω	Output channel: Trigger source channel Voltage: Approx. 25mV/div Bandwidth: DC to 10MHz not provided on V-1560																								
Calibrator	frequency: Approx 1kHz square wave Voltage: 0.5V ±1%																									
Environment temperature	Rated range of use: 10 to 35°C Operation mode: 0 to 50°C																									
Power supply	Voltage: AC 90 to 250V Frequency: 48 to 440Hz																									
Power consumption	Approx. 42W	Approx. 40W																								
Dimensions	310(W)×130 (H)×370(D)mm 12.2×5.1×14.5 ins.	275(W)×130(H)×360(D)mm 10.8×5.1×14.1 ins.																								
Weight	Approx. 7kg Approx. 15.4 lbs.	Approx. 6kg Approx. 13.2 lbs..																								
Standard accessories	Voltage probe (2), Power cable, Operation manual																									

Usable both Analog Real-time & Digital Storage

RSO(Real-time & Storage Oscilloscope)

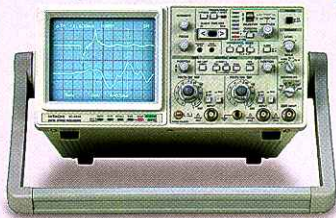


Photo in VC-6545

	Sampling rate	Bandwidth	Memory
VC-6645	100MS/s (1CH), 25MS/s (4CH simultaneous)	100MHz	4kw (1CH), 2kw/CH
VC-6555	100MS/s (2CH simultaneous)	100MHz	8kw (1CH), 4kw/CH
VC-6545	40MS/s (1CH), 20MS/s (2CH simultaneous)	100MHz	4kw (1CH), 2kw/CH
VC-6525	20MS/s (2CH simultaneous)	50MHz	2kw/CH
VC-6524	20MS/s	50MHz	2kw/CH
VC-6523	20MS/s	20MHz	2kw/CH

Specifications

V-555/552		V-252																					
CRT																							
Size	6-inch rectangular																						
Graticule	internal graticule, 8×10div (1div=1cm) with 0%, 10%, 90%, 100% marks																						
Acceleration potential	12kV	2kV																					
Focus control	Auto focus																						
Z-axis input	Sensitivity: at least 5Vp-p Frequency range: DC to 2MHz Polarity: positive input decreases intensity Max. input voltage: 30Vp-p (DC+ACpeak, at 1kHz)																						
VERTICAL SYSTEM																							
Sensitivity and accuracy	5mV/div to 5V/div ±3% in 10 calibrated steps ×5:1mV/div to 1V/div ±5% Continuously variable control between steps at least 1:2.5																						
Bandwidth	DC to 50MHz (×5: DC to 7MHz)	DC to 20MHz (×5: DC to 7MHz)																					
Rise time	approx. 7.0ns (×5: approx. 50ns)	approx. 17.5ns (×5: approx. 50ns)																					
Input impedance	approx. 1MΩ, approx. 25pF ±3pF																						
Max. input voltage	300V (DC+ACpeak, at 1kHz)																						
Input coupling	AC, GND, DC																						
Signal delay	Leading edge can be monitored	not provided																					
DC offset function	±1V to ±100V (with offset voltage output terminal)	not provided																					
Display Mode	CH1, CH2, ALT, CHOP (approx. 250kHz), ADD																						
Polarity invert	CH2 only																						
HORIZONTAL SYSTEM																							
Sweep time	0.2μs/div to 0.2s/div																						
Accuracy	±3%																						
Magnification	10 times (±5%)																						
Max. sweep rate	20ns/div	100ns (20ns/div and 50ns/div are uncalibrated)																					
Alternate Magnification	Simultaneous display of original and magnified waveform	not provided																					
TRIGGER SYSTEM																							
Trigger mode	AUTO, NORM, TV-V, TV-H																						
Trigger source	INT (CH1, CH2, V-MODE), LINE, EXT																						
Trigger slope	+, -																						
EXT trigger input	Input impedance: approx 1MΩ, approx. 30pF Max. input voltage: 300V (DC+ACpeak, at 1kHz)																						
Trigger sensitivity	<table border="1"> <thead> <tr> <th></th> <th>INT (except V-MODE)</th> <th>EXT</th> </tr> </thead> <tbody> <tr> <td>20Hz to 5MHz</td> <td>0.5div</td> <td>200mV</td> </tr> <tr> <td>5MHz to 40MHz</td> <td>1.5div</td> <td>800mV</td> </tr> <tr> <td>40MHz to 50MHz</td> <td>2.0div</td> <td>1V</td> </tr> </tbody> </table>		INT (except V-MODE)	EXT	20Hz to 5MHz	0.5div	200mV	5MHz to 40MHz	1.5div	800mV	40MHz to 50MHz	2.0div	1V	<table border="1"> <thead> <tr> <th></th> <th>INT (except V-MODE)</th> <th>EXT</th> </tr> </thead> <tbody> <tr> <td>20Hz to 2MHz</td> <td>0.5div</td> <td>200mV</td> </tr> <tr> <td>2MHz to 20MHz</td> <td>1.5div</td> <td>800mV</td> </tr> </tbody> </table>		INT (except V-MODE)	EXT	20Hz to 2MHz	0.5div	200mV	2MHz to 20MHz	1.5div	800mV
	INT (except V-MODE)	EXT																					
20Hz to 5MHz	0.5div	200mV																					
5MHz to 40MHz	1.5div	800mV																					
40MHz to 50MHz	2.0div	1V																					
	INT (except V-MODE)	EXT																					
20Hz to 2MHz	0.5div	200mV																					
2MHz to 20MHz	1.5div	800mV																					
TV trigger sensitivity	INT: Sync pulse more than 1div EXT: Sync pulse more than 200mV																						
X-Y OPERATION																							
Inputs	X-axis: CH1 Y-axis: CH2																						
Sensitivity	5mV/div to 5V/div ×5: 1mV/div to 1V/div																						
Phase error	3° or less from DC to 50kHz																						
X-axis bandwidth	DC to 500kHz																						
CRT READOUT FUNCTION																							
Setting display	V-555 only CH1 sensitivity, sweep time	not provided																					
Cursor measurements	V-555 only, simultaneous readout of voltage difference and time difference	not provided																					
OTHERS																							
Signal output	Output channel: CH1 Voltage: Approx. 20mV/div or more Bandwidth: 50Hz to 5MHz Output impedance: approx 50Ω	not provided																					
Calibrator	frequency: Approx 1kHz square wave Voltage: 0.5V ±3%																						
Environment temperature	Rated range of use: 10 to 35°C Operation mode: 0 to 40°C																						
Power supply	Voltage: AC 100/120/220/240V ±10% Frequency: 50 to 60Hz Power consumption: approx. 30W																						
Dimensions	310(W)×130 (H)×370(D)mm 12.2×5.1×14.5 ins.																						
Weight	V-555: Approx. 7kg, 15.4 lbs. V-552: approx. 6.5kg, 14.3 lbs.	approx. 6kg, 13.2 lbs..																					
Standard accessories	Voltage probe (2), Power cable, Operation manual																						

Optional accessories

	Accessory pouch No.6704: V-1585/555/552/252 No.6708: V-1565/1560/695	Dust cover No.6512: V-1585/555/552 No.6519: V-1565/1560/695 No.6513: V-252	Viewing hood B-655: All models	Voltage probe AT-10CY1.5: V-555/552/252 AT-10CP1.5: V-1585/1565/1560/695 AT-100AM1.5 (100:1/10:1 switchable)
	Front cover No.6806: V-1585/555/552/252 No.6809: V-1565/1560/695			

Specifications and outer appearance are subject to change without prior notice

HITACHI DENSHI (Europa) GmbH

Weiskircher Str. 88

63110 Rodgau, Germany

T. 06106-6992-0

Fax 06106-16906