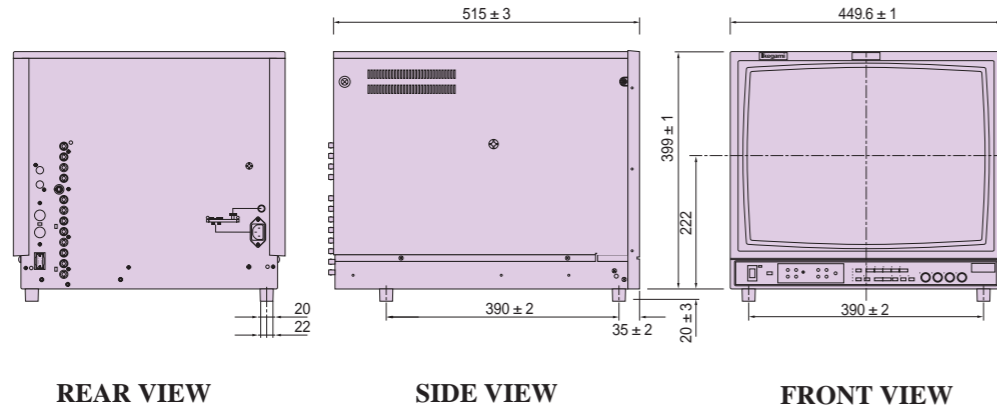
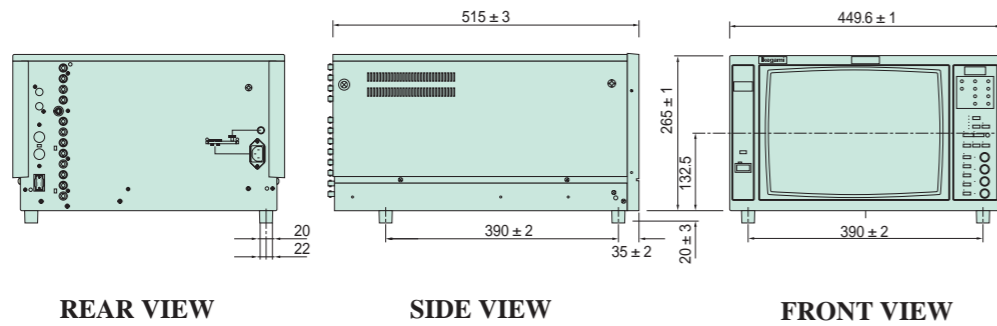


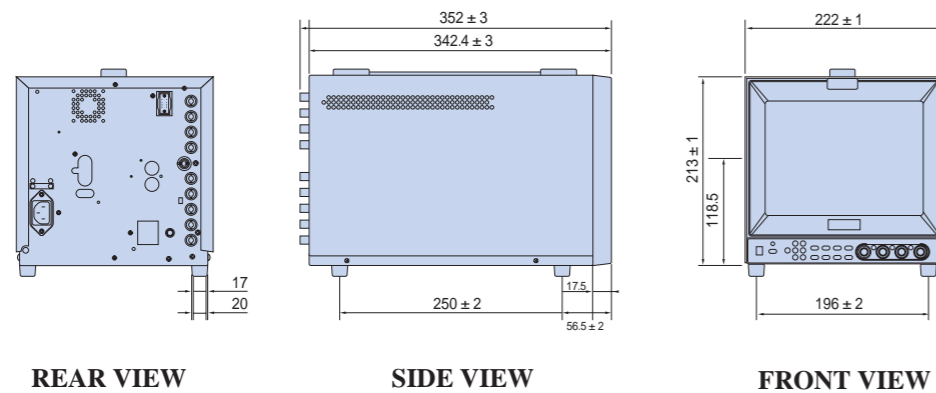
**TM20-17RA/RPA**



**TM14-17RA/RPA**



**TM10-17RP/RPA**



Unit:mm

Design and specifications are subject to change without notice.

\*NTSC versions are no available with CE Mark.

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**17-Series Colour Monitors**  
**TM20-17RA/RPA**  
**TM14-17RA/RPA**  
**TM10-17RA/RPA**



# Ikegami 17 Series for True Colour, High Stability and Outstanding Value.



TM10-17RA/RPA

Ikegami 17 Series are High performance, Low cost colour Monitors, providing PAL-NTSC automatic selection. The units are specifically designed for production or broadcast applications and provide high-fidelity video reproduction with easy operation,utilizing In-Line Gun CRT technology, BFS circuits, and Comb filter(NTSC only). The 17 Series Colour Monitors can accept 2 composite video, Y/C and RGB or Component inputs in both PAL and NTSC formats. Furthermore, Digital Inputs (D1 or D2/D3 formats) are available with optional modules.

## 17 Series Colour Monitors

### Features

#### Cathode Ray Tube

- In-line Self Converging Electron Gun assures convergence stability.
- Black Matrix surrounding CRT face assures high contrast under bright ambient lighting.

#### Circuitry

- PAL-NTSC mode selection.
- Screen aspect ratio of 4:3 or 16:9, with front panel switchable.
- BFS (Beam Feed-back System) provides long-term Black Level stability.
- Preset Controls: Hue (NTSC Only), Chroma, Y/Pb/Pr Chroma, Brightness, Contrast.
- Comb Filter provides wide band luminance, switchable to notch filter at front panel (NTSConly) (TM10-17RA/RPA: Comb Filter only).
- Sweep failure protection circuit prevents phosphor burns.

#### System Conveniences

- 4 Video Inputs (A/B/YC/RGB or Y, Pb, Pr), with front panel switchable.
- Digital Inputs (D1 or D2/D3 formats) are available with optional modules.
- Horizontal Time Constant can be selected in either 0.5msec. or 2msec.
- Rack mount units available.

#### Test Facilities

- Underscan switch to permit observation of picture corners.
- Pulsecross switch for sync signal verification.

## Specifications

### GENERAL

**Input Voltage**  
200V ~ 240VAC  $\pm$  10%, 50/60Hz, Single Phase  
100V ~ 120VAC  $\pm$  10%, 50/60Hz, Single Phase  
(Set up at the factory according to the destination)  
DC Input: + 12VDC(Option:TM10-17RA/RPA)

**Power Consumption**  
TM10-17RA/RPA:Approx 50W  
TM14-17RA/RPA, TM20-17RA/RP: Approx 60W

**Ambient Temperature**  
0 ~ 40 °C, 90% or less relative humidity (non-condensing)

**Dimensions(WHD)**  
TM10-17RA/RPA: 222 x 213 x 352mm  
TM14-17RA/RPA: 450 x 265 x 515mm  
TM20-17RA/RPA: 450 x 399 x 515mm

**Weight**  
TM10-17RA/RPA: Approx. 10kg  
TM14-17RA/RPA: Approx. 19kg  
TM20-17RA/RPA: Approx. 28kg

### RATING

**Input Signal**  
Video: 2inputs  
Y/C: 1 input  
RGB/Y, Pb, Pr: 1 input  
\*Switchable at Rear Panel  
Digital Video: TM10-17RA/RPA: 1 input (Option)  
TM14-17RA/RPA, TM20-17RA/RPA: 2 inputs (Option)  
\*2 inputs Available

**Input Level**  
Video Signal:  
Composite 1.0Vp-p  
Non Composite 0.7Vp-p  
Y/C Signal:  
Y signal 1.0Vp-p  
C signal 0.286Vp-p(burst level)  
RGB or Y, Pb, Pr:  
<RGB Signal>  
G signal 1.0Vp-p(Sync on Green) or 0.7Vp-p  
R/B signal 0.7Vp-p  
<Y, Pb, Pr Signal>  
N10/SMPTE Format  
Y White: 0.7Vp-p  
Setup: 0%  
Sync: 0.3Vp-p  
Pb, Pr: 0.525Vp-p  
Digital Video(D1 or D2/D3):  
Serial: 0.8Vp-p  $\pm$  10%  
Sync Signal: 0.3Vp-p ~ 6Vp-p  
Audio: 0.315Vrms(-10dBV)  
(TM10-17RA/RPA only)

**Connection**  
Video/RGB or Y, Pb, Pr:  
Bridging BNC connectors, high impedance with 75 termination plug(TM10-17RA/RPA, TM20-17RA/RPA), 75 terminated(TM10-17RA/RPA)  
Y/C:  
4pin plastic connector, single end, 75 terminated.  
(TM14-17RA/RPA, TM20-17RA/RPA, 7pin metal connectors are OPTION)  
Audio:RCA Connector(TM10-17RA/RPA)

### Remote Controls

Parallel Remote:  
Video input select(A/B/YC/RGB or Y, Pb, Pr/Digital)  
COLOUR/MONO select  
Tally(ON/OFF)  
4:3/16:9  
SYNC INT/EXT (TM10-17RA/RPA only)  
\*Unusable except for Tally in case of Serial Remote operation (TM14-17RA/RPA, TM20-17RA/RPA )

Serial Remote (Option):  
Video input select (A/B/YC/RGB or Y, Pb, Pr/Digital)  
COLOUR/MONO select  
SYNC INT/EXT  
Blue only ON/OFF  
Comb/Trap  
Apt ON/OFF  
4:3/16:9  
Nor/Under scan  
Delay (PCR) ON/OFF  
Degauss ON/OFF

### PERFORMANCE

**CRT**  
In-line gun,  
Dot-shadow mask,  
high resolution CRT  
EBU phosphor

**Dot Trio Pitch**  
TM10-17RA/RPA: 0.28mm  
TM14-17RA/RPA: 0.31mm  
TM20-17RA/RPA: 0.43mm

**Resolution(at center)**  
TM10-17RA/RPA: 450TV lines or more  
TM14-17RA/RPA: 600TV lines or more  
TM20-17RA/RPA: 600TV lines or more

### VIDEO SIGNAL SYSTEM

**Frequency Response**  
Measured with Aperture Gain 0, (notch filter OFF)  
50Hz ~ 7MHz; flat with in + 1/ - 3dB  
(TM14-17RA/RPA, TM20-17RA/RPA)  
50Hz ~ 5MHz; flat with in + 1/ - 3dB  
(TM10-17RA/RPA)

**Pulse Response**  
At each RGB amplifier output with 0.05  $\mu$ sec. rise time square wave video input  
Overshoot: 10% or less(at 250kHz)  
Sag(Tilt): 5% or less(at 50Hz)

**Chrominance Rejection Ratio**  
Less than - 20dB (TM10-17RA/RPA)  
Less than - 24dB (TM14-17RA/RPA, TM20-17RA/RPA)  
(with aperture correction 0, notch filter ON)

**Aperture Correction**  
Waveform of Overshoot of 2T pulse appear symmetrically with notch filter ON

**Noise**  
Coherent noise: Less than - 40dB  
Other noise: Less than - 50dB

### COLOUR SIGNAL SYSTEM

**Demodulation Axis**  
R-Y, B-Y system

**Frequency Response**  
PAL: 4.43MHz  $\pm$  0.5MHz +1/-3dB  
NTSC: 3.58MHz  $\pm$  0.5MHz +1/-3dB  
(measured at chroma output test point)

**Demodulation Axis Phase Error**  
90°  $\pm$  2°

### SYNC SYSTEM

**Sync Stability**  
Stability of synchronization will be met for the following conditions:  
**Internal Sync**  
Video input level within  $\pm$  6dB against the rated value of 1.0Vp-p

**External Sync**  
Sync Signal Input level of 0.3 ~ 6.0Vp-p(TM10-17RA/RPA)  
0.3 ~ 8.0Vp-p(TM14-17RA/RPA, TM20-17RA/RPA)

**AFC Time Constants**  
SLOW: Approx. 2.0msec.  
FAST: Approx. 0.5msec.

### DEFLECTION SYSTEM

**Scanning Frequency**  
**Horizontal**  
Nominal 15.625kHz(PAL), 15.734kHz(NTSC)

**Vertical**  
Nominal 50Hz(PAL), 59.94Hz(NTSC)

**Scanning Amplitude**  
**NORMAL SCAN (adjustable)**  
Overscan is 1% of CRT effective area with an aspect ratio of 4:3

**UNDER SCAN(adjustable)**  
Four comers are visible within boundary of effective area with an aspect ratio of 4:3 or 16:9

**Geometry and Linearity**  
Less than 2% of picture height

**Convergence Error**  
**Center**  
Inside a circle with diameter of 80% of picture height : Less than 0.5mm

**Corner**  
Outside area of picture center, Less than 1.2mm(TM10-17RA/RPA), 0.8mm(TM14-17RA/RPA), 0.9mm(TM20-17RA/RPA),

### HIGH VOLTAGE

**Tolerance**  
TM10-17RA/RPA: 18kV +0, - 2kV  
TM14-17RA/RPA, TM20-17RA/RPA: 24kV  $\pm$  1kV

**Regulation**  
 $\pm$  5% over the range of  
0 ~ 300  $\mu$ A(TM10-17RA/RPA),  
0 ~ 450  $\mu$ A(TM14-17RA/RPA, TM20-17RA/RPA) referred to 150  $\mu$ A.

### OPTION

<TM10-17RA/RPA>  
DC-1072 DC Power Module (DC12V)  
BR-1017BA(BP-90), BR-1017NA(NP-1) Battery Case  
DK-1073 D1 SDI Kit, DK-1073A( with Embedded Audio)  
DK-1074N D2/D3 NTSC SDI Kit, DK-1074NA( with Embedded Audio)  
SF-1071 Serial Remote Interface Module  
SRC-301 Serial Remote Controller(BNC connector control)  
Rack Mount Adaptor

<TM14-17RA/RPA, TM20-17RA/RPA>  
DK-173 D1 SDI Kit  
DK-174N D2/D3 NTSC SDI Kit  
SF-171 Serial Remote Interface and Y/C Input(7pin connector)  
SRC-301 Serial Remote Controller(BNC connector control)  
Rack Mount Adaptor