



Visual System Solutions 2017 – Stand der Dinge

Jürgen Dufft

Panasonic

BUSINESS

Line-Up - Professionelle Projektoren

Large-Venue



3-Chip DLP™ (SOLID SHINE)

NEW

PT-RQ32K



27,000 lm(Center)/26,000 lm

NEW

PT-RZ31K/RS30K



31,000 lm(Center)/30,000 lm

NEW

PT-RZ21K/RS20K



21,000 lm(Center)/20,000 lm

PT-RQ13K



10,000 lm

PT-RZ12K/RS11K



12,000 lm

3-Chip DLP™

PT-DZ21K2 Series



16,000 - 20,000 lm

PT-DZ13K Series



10,600 - 12,000 lm

LCD

PT-EX10K



13,000 lm

PT-EX12K



13,000 lm

Installation



1-Chip DLP™ (SOLID SHINE)

PT-RZ970 Series



16,000 - 16,400 lm(Center)
16,000 - 16,000 lm

PT-RZ770/RZ680 Series



10,000 - 10,000 lm(Center)
10,000 - 10,000 lm

PT-RZ570 Series



10,000 lm(Center)/10,000 lm

PT-RZ575



10,000 lm(Center)/10,000 lm

PT-RZ470 Series



3,500 lm

PT-RZ370 Series



3,500 lm

1-Chip DLP™

PT-DZ970 Series



8,500 - 10,000 lm

PT-DZ780 Series



7,000 - 8,200 lm

LCD

PT-EZ770 Series



6,500 - 7,500 lm

PT-EZ590 Series



5,300 - 6,200 lm

PT-FZ570 Series



4,500 - 5,000 lm

Space Player

NEW

PT-JX200



2,000 lm

PT-JW130



1,000 lm

Portable / Short Throw



LCD

Portable

NEW
Jun. 2017

PT-580 Series



600 lm

PT-7350 Series



600 lm

NEW

PT-423 Series



100 lm

Short Throw

NEW

PT-351R Series



800 lm

Panasonic

BUSINESS

Line-Up - Professionelle Displays

Professional

Public

Collaboration

4K Display



LQ70 Series



LQ70L Series

(Protective Glassless Model)



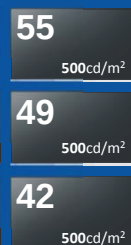
Indoor



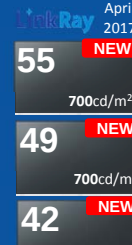
LF80 Series



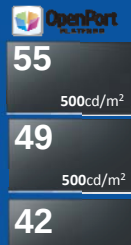
LF8 Series



SF1H Series



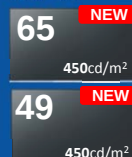
AF1 Series



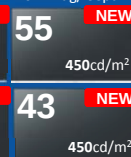
LF50 Series



SF2 Series



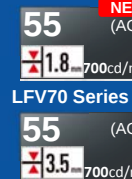
2017 Aug/ Sept.



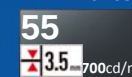
Video Wall



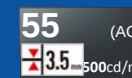
VF1 Series



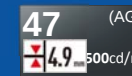
LFV70 Series



LFV6 Series



LFV5 Series



Outdoor



LFX60 Series



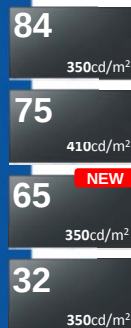
LFX6N Series



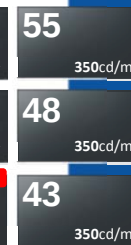
Entry Indoor



EF Series



EF1 Series



EF1 Series



EF1 Series



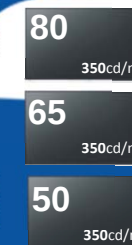
EF1 Series



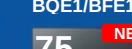
Interactive



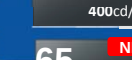
BF1 Series



BF1 Series



BF1 Series



BF1 Series



Panasonic

BUSINESS



(Network model only)

WUXGA w/Network	PT-VZ585N	5000lm
WUXGA	PT-VZ580	5000lm
WXGA w/Network	PT-VW545N	5300lm
WXGA	PT-VW540	5300lm
XGA w/Network	PT-VX615N	5500lm
XGA	PT-VX610	5500lm

3LCD

High Brightness

Compact Design

DIGITAL LINK

Advanced Miracast

Development: June 2017

PT-VZ580 series

High brightness portable Projector for Meetings and Lectures

Primary Markets: Classroom, Meeting room, Lecture Hall (Small-Middle size)

Key Features:

- Share & Collaborate Your Way (for VZ585N/VW545N/VX615N)
 - Advanced Miracast w/Moderator mode (The world's 1st)
 - Easy Pairing Support function offer so simple wireless connection
 - PC-less projection with USB Memory (Memory Viewer function)
 - DIGITAL LINK with Long Reach mode, Long distance wiring up to 150m
- High Value Cost-Performance and Efficiency
 - Thanks to long replacement cycle of 7000 hours of High Efficiency Lamp and Long Lasting Air



Wartungsfrei (bis ca. 20.000 Std.)

Schnell An/Aus

Reduzierte Betriebskosten

Geringerer Ø Stromverbrauch

Flexible Positionierung

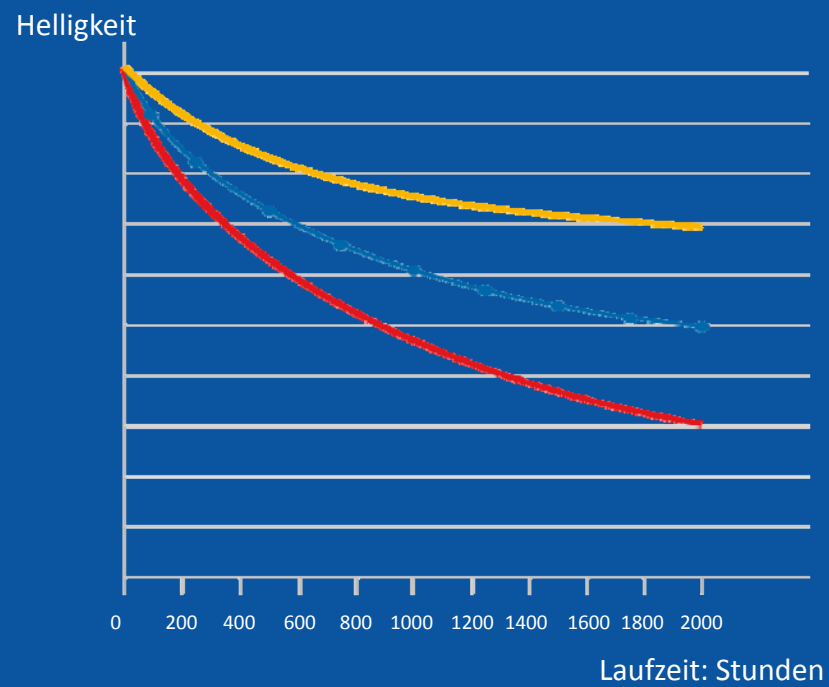
Höhere Ø Lichtleistung

Geringe Geräuscentwicklung



Panasonic

BUSINESS



Heiligkeitsstabilität



Panasonic

BUSINESS

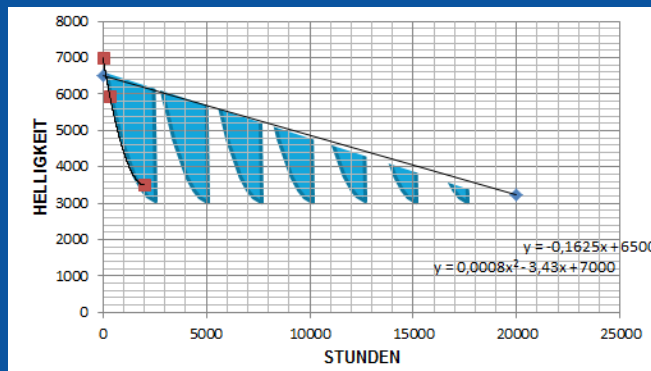
Welcher Projektor ist heller?

Lampenprojektor benötigt 8-10x Lampen-Wechsel um 20.000 Std. zu erreichen

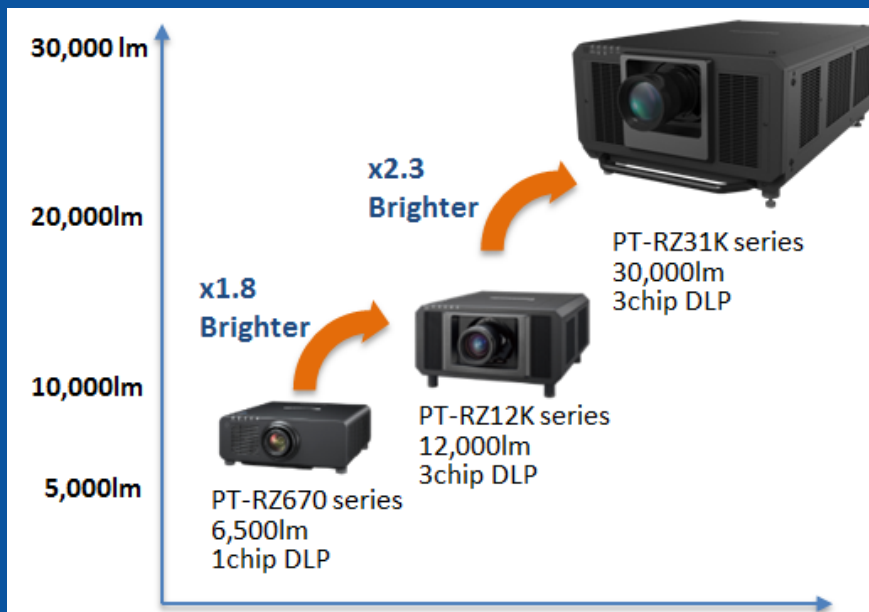


Lampe
7.000 ANSI Lumen

Laser
6.500 ANSI Lumen



- Wenn [BETRIEBSMODUS] auf [NORMAL] eingestellt ist: ungefähr 20 000 Stunden
- Wenn [BETRIEBSMODUS] auf [ECO] eingestellt ist: ungefähr 24 000 Stunden
- Wenn [BETRIEBSMODUS] auf [LANGLEBIG1] eingestellt ist: ungefähr 43 000 Stunden
- Wenn [BETRIEBSMODUS] auf [LANGLEBIG2] eingestellt ist: ungefähr 61 000 Stunden
- Wenn [BETRIEBSMODUS] auf [LANGLEBIG3] eingestellt ist: ungefähr 87 000 Stunden



2014 - 2017

B

Panasonic
BUSINESS

Laser - Schlüsseltechnologien

Panasonic eigene Entwicklungen

Effiziente
Kühlung

Laserlicht-
quelle

Zuverlässige
Farbräder
(Phosphor)

Zuverlässige
bildgebende
Elemente

Staubschutz

Filterlos



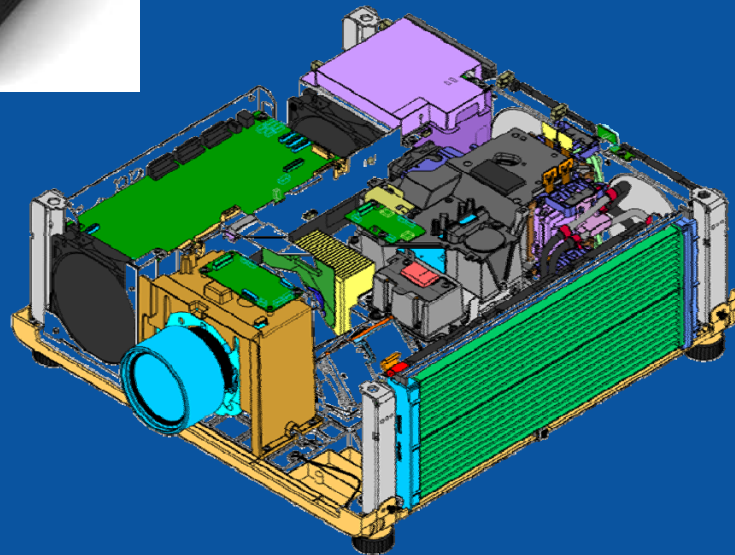
Panasonic

BUSINESS

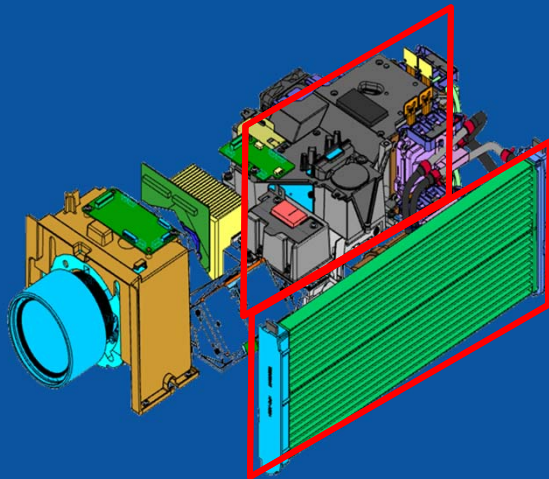
Am Beispiel der PT-RZ770



Kompaktes Design, effizient
aufgeräumtes Innenleben



B



Gekapselter optischer Block =

- langanhaltende Qualität
- Helligkeit
- Wartungsfreiheit

Effiziente Flüssigkeitskühlung =

- kompakte Bauweise
- geringe Geräuscentwicklung
- geringer Verschleiß der hitzebelasteten Komponenten
- Kombination von Lüfter & Flüssigkeitskühlung



Panasonic

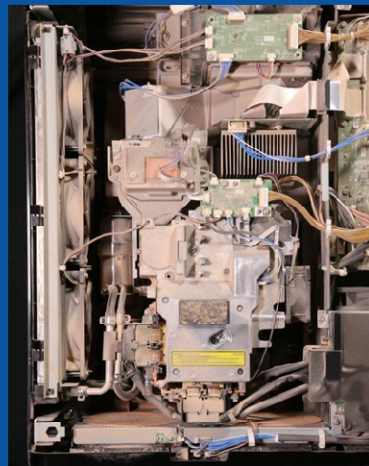
BUSINESS

Staubschutz & Kühlung

Staub-Test im Werk



vorher



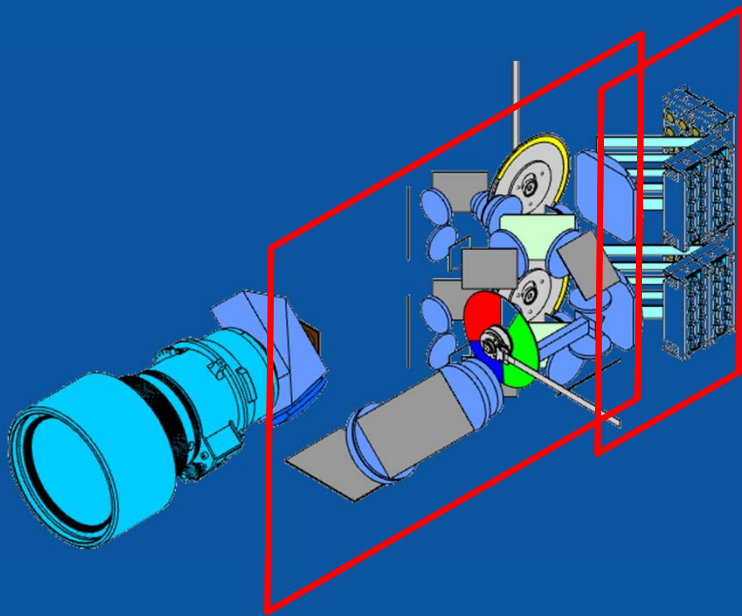
nachher

20.000 Stunden Simulationstest



Kein Staub auf
der Linse bzw.
dem DMD
Chip



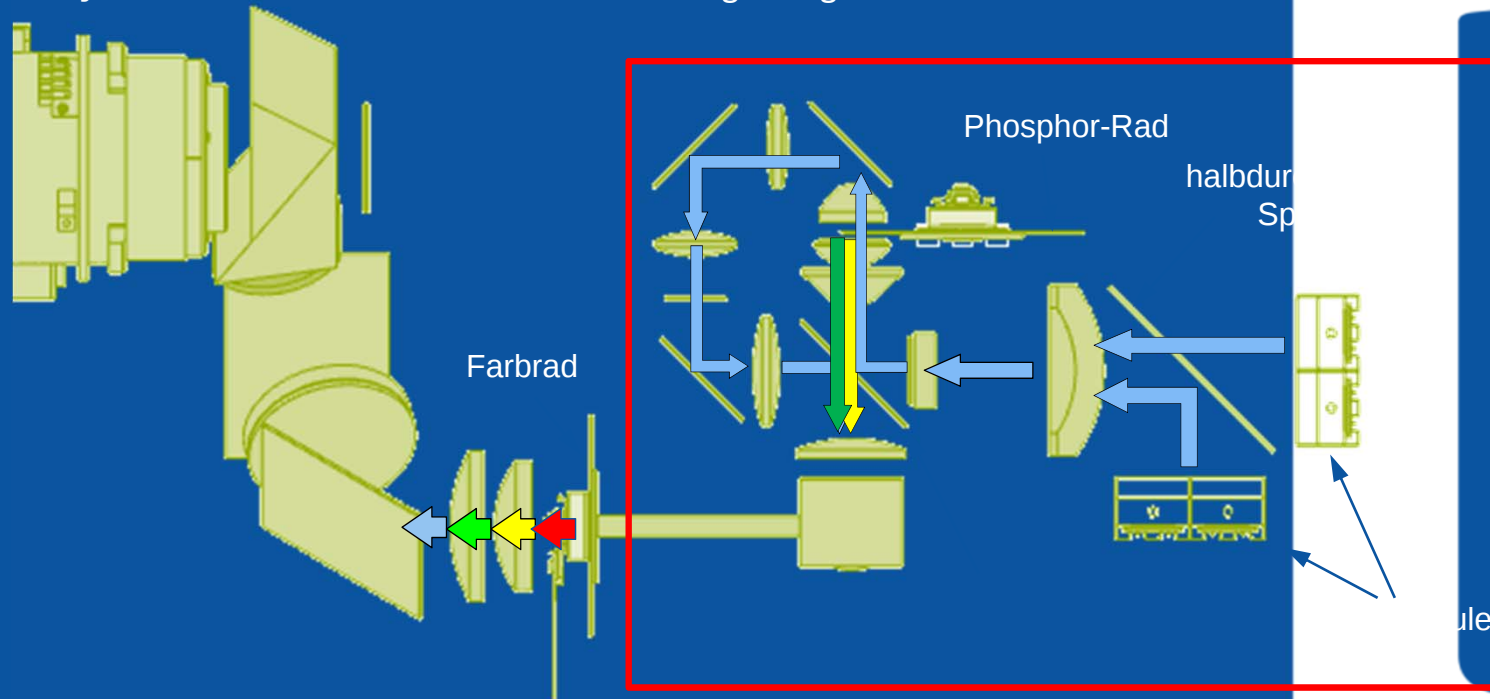


Ausfallsicherheit durch Redundanz

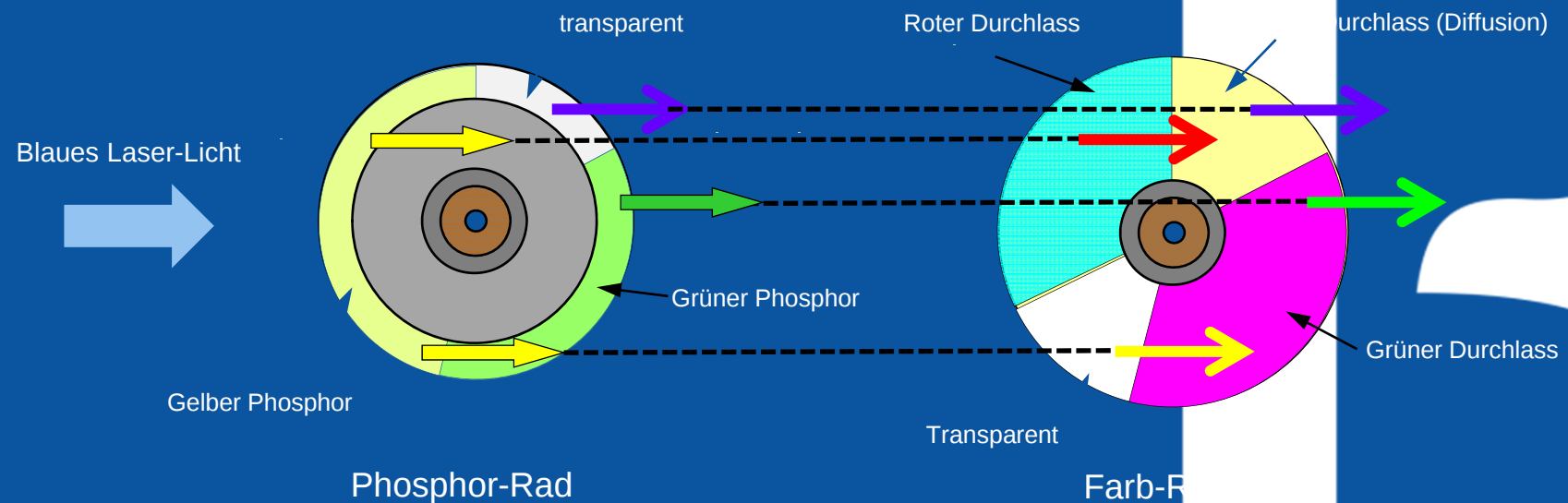
- Redundanz der "Light Engine"
(doppelt vorhanden)
- Mehrere Laserdioden
(8 Blöcke à 8 Laser-Dioden
in Reihe = 7% Ausfall)
- 2 unabhängige Netzteile
- doppelte Phosphorröhre

B

Objektiv



Ausgeklügeltes und präzise synchronisiertes System von Phosphor- und Farbrädern
Farbdarstellung bei 1 Chip-DLP Laser Projektoren



mit unterschiedlichen Phosphoren beschichtet; doppelt vorhanden; untereinander und mit Farbrad synchronisiert

Nr. 1 in laser projector

17



20 000 hours
maintenance-free
lifetime



Flexible projection
position with 360° free
installation



New liquid cooling
system enables
quiet operation



Outstanding
picture quality



Instant on/off
capability



Eco-friendly
mercury-free



Multiple lens
compatibility

Panasonic

BUSINESS

Ausblick Highlight 2017 – 11/2017 PT-RZ21



PT-RZ21K Series		
	PT-RZ21K	PT-RS20K
Brightness	20,000 lm	
Resolution	WUXGA	SXGA+
Contrast	20,000:1	

20,000 lm (center)
 1920 x 1080 pixels Design

RZ21K series ^{NEW}



WUXGA 21,000lm (Center)
20,000lm*

PT-RZ21K

SXGA+ 21,000lm (Center)
20,000lm*

PT-RS20K



3-Chip DLP™

Real Motion Processor

Low TCO

360° Layout Free

Geo. Manager Pro

Shipment: November 2017

*Panasonic strict measurement comply with ISO 21118 international standards.

20,000 lm of SOLID SHINE Laser Power in a Compact, Lightweight body.

Primary Markets: Rental & Staging, Entertainment, Auditorium/ Hall

Durability: ★★★★★

Heavy Duty

Key Features:

- High reliability Reliable operation. ⇒ **Durable Dust-proof Optical System**, Efficient Cooling System, Flexible operation mode
- Impressive Image Quality. ⇒ Dynamic Contrast w/ Contrast Sync, Daylight View Function
- Easy installation. ⇒ **Lightweight, Easy-to-Handle Body**, Free Geometry Manager Pro and Optional Upgrade Kit

Panasonic

BUSINESS

	PT-DZ21K2	PT-RZ21K	PT-RS20K
Brightness	20,000lm	21,000 lm (Center) 20,000lm*	
Display method	3chip DLP™	3chip DLP™	
Resolution	WUXGA (1,920 x 1,200)	WUXGA (1,920 x 1,200)	SXGA+ (1,400 x 1,050)
Aspect ratio	16:10	16:10	4:3
Contrast ratio	10,000:1	20,000:1	
Light source (life time)	4 UHM Lamps (3,000 hrs)	Laser + Phosphor (20,000 hrs)	
Interface terminals	HDMI, DVI-D, RGB x2, 3G-SDI x2, DIGITAL LINK	HDMI, DVI-D, RGB x2, 3G-SDI x2, DIGITAL LINK	
Installation	Portrait	360-degree	
Operating environment	0-45°C	0-50°C (TBD)	
Power supply	AC 200-240 V	AC 100-120 V, AC 200-240 V (In case of AC100-120V range, brightness drops down)	
Power consumption	2,060W	< 2,000W	
Dimension (mm : W x H x D)	730 x 255 x 620mm	725 x 270 x 598mm	
Weight	41kg	< 49kg (TBD)	
Functionality	-	Dust-resistant design Durable Design Optical Engine	

Panasonic

BUSINESS

Compact & Lightweight

RZ21K is the **No1 “compact” & “lightweight”** projector in high brightness class (over 20,000lm class).
RZ21K is almost same size with DZ21K2, and compatible with DZ21K's frame.

Panasonic RZ21K

20,000lm



49Kg

117L

New!

Epson L25000

25,000lm



71Kg

168L

Barco UDX W22

22,000lm



87Kg

192L

Dust-resistant design

By combining a shielded laser light source with a high performance cooling system, the RZ21K achieves a lifespan of 20,000 hours* Maintenance free.
(Light source output: Normal)

Hermetically sealed optical engine



Not need Filter

Durable Optical Engine

RZ21K mounting structure is designed to prevent external Vibration affect on to the so



Conventional



RZ21K

Panasonic

BUSINESS

PT-RZ31

Auflösung - WUXGA

Kontrast - 20,000:1

Helligkeit - 31,000lm (Center) /30,000lm* WUXGA

Lautstärke - 49dB

Gewicht - 79kg



Panasonic
BUSINESS

MZ670 series

3LCD Laser/Phosphor Projector



Shipment: Nov 2017

WUXGA model
WXGA model

PT-MZ670/L 6,500lm
PT-MW630/L 5,800lm

PT-MZ570/L 5,500lm
PT-MW530/L 5,500lm

MZ670 Series Product Outline [TENTATIVE]

Model	PT-MZ670/L	PT-MZ570/L	PT-MW630/L	PT-MW530/L
LCD Panel size	0.76" (16:10)			
Resolution	WUXGA (1,920 × 1,200 pixel)		WUXGA (1,280 × 800 pixel)	
Brightness	6500lm	5500lm	6500lm	5500lm
Contrast ratio	3 000 000:1 (Dynamic Contrast) *Target			
Light Source	Laser Diode/Phosphor			
Lens	Standard (with lens model) + Optional x 5 (Powered) * Note : Compatible with EZ770 series' Lens			
Lens Shift	V: +/- 67%, H: +/- 35%			
Operating Noise	33dB (Normal/Eco mode), 28dB (Quiet Mode) *Target			
DIGITAL LINK	Yes (Long Reach Mode Comp)			
HDMI Terminal	x 2			
Wireless Function	Optional (ET-WM300)			
Dimension(Without protrusions)	560 x 185 x 425 mm (22-1/16 x 7-9/32 x 16-23/32 in) *Target			
Weight (without lens)	15 kg (33 lbs) *Target			

Panasonic

BUSINESS

Item	MZ Series	RZ Series
Main Target Application	Lecture Room Meeting Room	Rental and Staging Control Room Auditorium
Optical System	LCD System	DLP System
Brightness (ANSI)	Mid(5.5 to 6.5 Klm)	Mid to High(5.2 to 30 klm)
Screen Size	Small to Mid	Mid to Large
Requested Dust Resistance	Normal	Strict Dust standard : 0.15mg/m ³
Projection Screen	Single	Single/Multiple (Less Color Unevenness)
Cost	Low Initial Cost	Low TCO
Operation Noise	Low	Mid to High
Dimensions	Small	Mid to Large

Panasonic

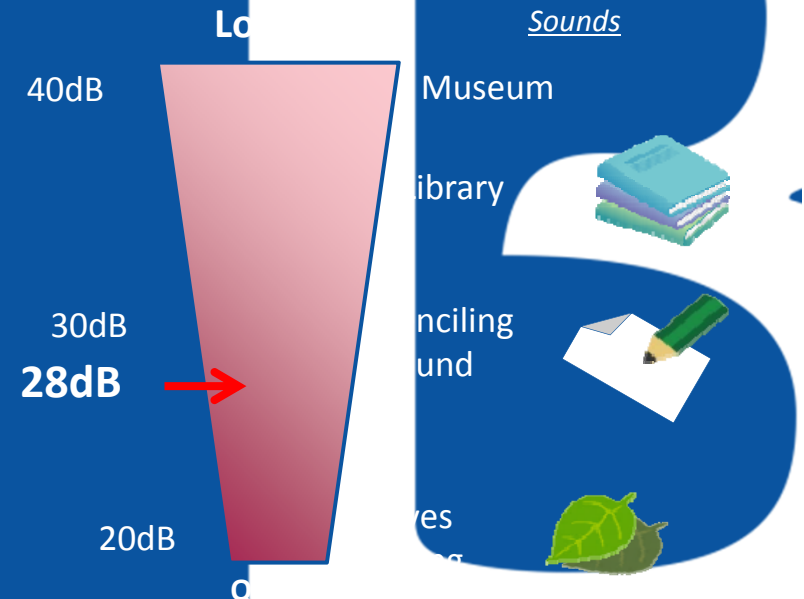
BUSINESS

Low Operation Noise 28dB in Quiet Mode for Lecture or Meeting

MZ series achieve not only 28dB on Quiet mode but also 33dB on Normal mode. It ensures no interruption by the operation noise of the projector.



Use Panasonic's technology to optimization of fan control and laser control



Panasonic

BUSINESS

Superb Picture Quality and Flexible Setting for Various Installation

Wide-Range Lens Shift Function

Wide-range lens shift grants flexibility for installation in various rooms

Class No.1
Wide-Range



Vertical $\pm 67\%$ (Max)
Horizontal $\pm 35\%$ (Max)

Various Optional Lenses

Able to use the optional lenses of EZ770 series.
Able to easy replace the 3LCD lamp models which is not only Panasonic Projector but also SANYO Projector

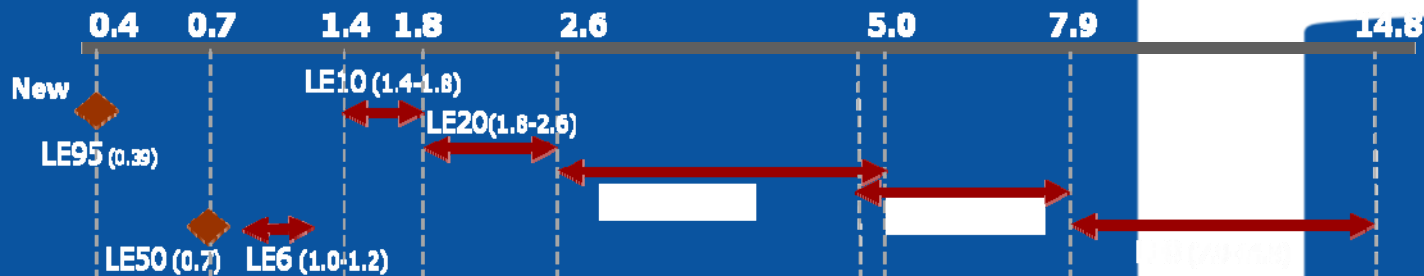
Throw Ratio	0.8:1	0.78-0.98:1	1.3-1.7:1	1.7-2.8:1	2.8-4.6:1	4.6-7.2:1
Model Number	ET-ELW21	ET-ELW22	ET-ELW20	Standard	ET-ELT20	ET-ELT21



Panasonic

BUSINESS

Throw Ratio Chart for 3chip DLP™ projectors



Model No	Ultra Short-throw	Fixed Focus	Zoom					
			w/ Hood to comply FDA (US only)					
	ET-D75LE95	ET-D75LE50	ET-D75LE6	ET-D75LE10	ET-D75LE20	ET-D75LE30	ET-D75LE40	ET-D75LE8
	New 							
RQ32K	0.39:1	0.7:1	1.0-1.2:1	1.4-1.8:1	1.8-2.6:1	2.6-5.0:1	4.9-7.9:1	7.9-14.8:1
RZ31K	0.36:1	0.7:1	0.9-1.1:1	1.3-1.7:1	1.7-2.4:1	2.4-4.7:1	4.6-7.4:1	7.3-13.8:1
RS30K	0.39:1	0.8:1	1.0-1.2:1	1.4-1.8:1	1.8-2.6:1	2.6-5.1:1	5.0-8.0:1	7.9-15.0:1

Panasonic

BUSINESS



ET-D75LE95

Ultra Short Throw Lens for 3chip DLP™ Projector

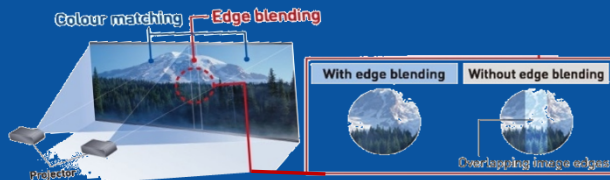
Running Change

Model	Compatible Models	Thro Ratio	Lens Shift	Dimension	Weight
LE90	Full Coverage Up to 20,000lm (ie. DZ21K2 series)	Same 0.36:1 (WUXGA)	Expand V: +5% H: -6% to +6%	Almost Same 448.5mm (17.7") x Φ154mm (6.1")	Light 6.5kg (14.3 lbs)
LE95	All 3chip DLP™ incl. RQ32K/RZ31K series	0.36:1 (WUXGA)	V: +12 to +19% H: -12% -to+12%	463.5mm (18.2") x Φ154mm (6.1")	5.7kg (12.6 lbs)

Panasonic

BUSINESS

Edge Blending / Color Matching



1. Edge blending function

Einfaches Edgeblending intern (FB) bei Multi-Screen Anwendungen

2. Color matching function

Leichte Unterschiede in der Farbwiedergabe werden automatisch korrigiert bei Multi-Screen Anwendungen

3. Digital Image enlarging

Bilder können bis zum 10-fachen vergrößert werden one externe Geräte

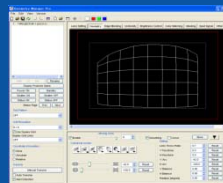
Geometric Adjustment



Geometrie Anpassung – schnell & einfach (intern)

Geometry Manager Pro

Geometry Manager Pro Software Ermöglicht die Anpassung via Netzwerk

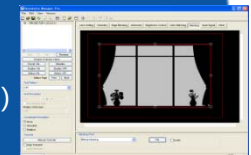


Flexible System Anpassung

Upgrade kit for Geo. Manager Pro

ET-...
Weitere Funktionen

- Geometric Adjustment (gr... 26) (Remote... available)
- Ma...
- Un...



Auto Screen Adjustment

ET-CUK10 /CUK10P *

Zeit... ersparnis durch Einsatz von...chnik



Panasonic

BUSINESS

Smart Projector Control

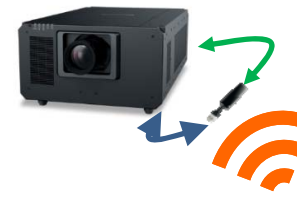


Projektor kann überwacht und kontrolliert werden über ein Smartphone oder Tablet PC

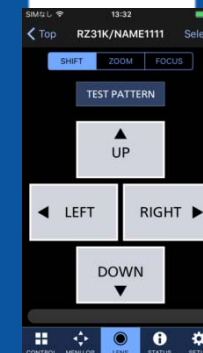
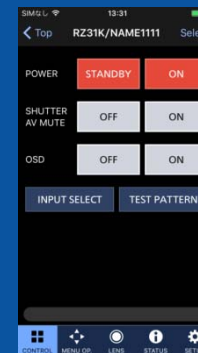
Item	Contents
Control (On/Off)	Power , Shutter, On Screen Display
Test pattern	Switching Test Pattern
Input select	Switching Input
Menu Operation	Operation of On Screen Display
Lens	Lens adjustment (SHIFT/ZOOM/FOCUS)
Status	Monitoring of projector status
Setup	Set up to connect early Warning Software

Beispiel

1 unit use



Multiple use





The image shows a screenshot of the Early Warning Software ET-SAW100 interface on the left and a Panasonic projector on the right. The software interface displays various status and warning information, including a table of messages and a list of devices.

Save Time and Reduce Costs for Maintenance and Service

Early Warning Software Status-Überwachung,
Wartungsempfehlungen, Fehlermeldungen) für Panasonic
Business Projektoren & Displays.

Panasonic

BUSINESS

Panasonic Visual Academy

Die Schulungen ermöglichen Experten für visuelle Systeme

- bessere Beratungsqualität anzubieten
- vertiefte Produktkenntnisse für das gesamte Unternehmen zu erwerben
- über aktuelle Technologien des Marktführers stets informiert zu sein
- eine Akkreditierung von Panasonic Visual Pro für Projektoren und Displays zu erhalten sich klar von Mitbewerbern abzuheben



<http://business.panasonic.de/visuelle-systeme/panasonic-visual-academy>

Panasonic

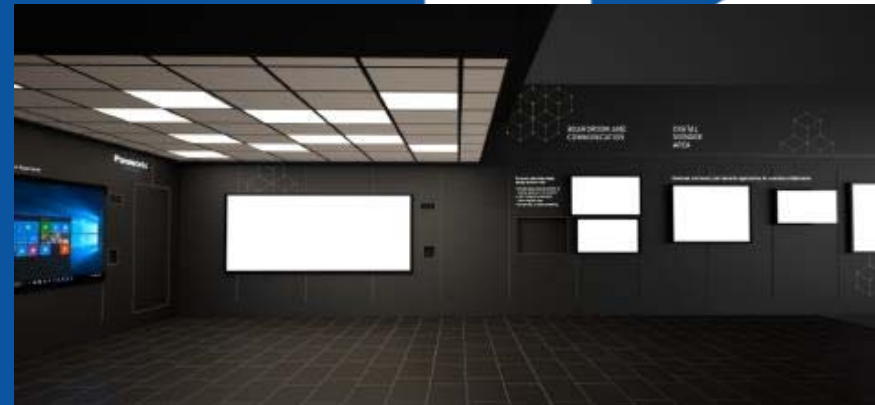
BUSINESS

Panasonic Visual Academy

Highest Trainingsumgebung in Wiesbaden

Representative Präsentation von Produkten und Lösungen

Auch für potentielle Endkunden Termine



Panasonic

BUSINESS

IMMERSIVE FITNESS - LesMills

LES MILLS



https://youtu.be/jNKsfORI_e0

kte installiert in
on, Paris,
ourg,
anne,
holm...

670 & P

eatures:

ldqualität
usfallsicherheit
perfektes Edge-Blending

Panasonic

BUSINESS

Einsatzgebiet U-Bahnhöfe als Werbefläche



In der U-Bahnhöfen
München & Stuttgart

Bereits +200 Mal

PT-RZ660 & RZ770

verbaut

Key features:

- Bildqualität
- Ausfallsicherheit
- Wärmeentwicklung
- Staubschutz



Panasonic

BUSINESS

Eröffnung Elbphilharmonie, Hamburg

- 27 x PT-RZ31
- Insgesamt 800.000lm
- Insgesamt 17.400 x 2.160 Pixel Auflösung
- Fiberglasverkabelung
- Live Event wurde im NDR TV übertragen



Panasonic
BUSINESS

PT-RZ31K Series
3-Chip DLP™ Projectors

PT-RZ31K
PT-RS30K

Evolution Reaches a New Peak



Panasonic

BUSINESS

Erfahrung und starkes Leistung:

- Insgesamt 110 Projektoren im Einsatz
- PT-RZ31 / DZ21 / RQ13 etc
- Broadcast TV Kamertechnik & Studio Monitore
- Videowalls
- Videoüberwachung
- Besonders zuverlässig und leistungsstark
- 25 Jahre Erfahrung in Medientechnik für die Olympischen Spiele

<https://panasonic.net/cns/projector/casestudies/rio2016/#video>

Einsatzgebiet Olympische Spiele



Panasonic

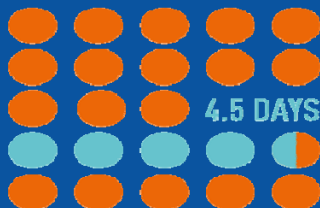
BUSINESS

Rental Markt Studie

→ Befragung von Rental-Profis in ganz Europa, ROI Team, 2014

KEY DYNAMICS FOR THE R&S SECTOR

AVERAGE HIRE PERIOD

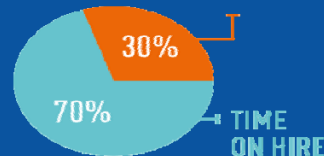


PROJECTOR HIRED OUT APPROX
57 TIMES PER YEAR

OWN PROJECTOR FOR BETWEEN



TIME IN THE WAREHOUSE



1368 HOURS
OPERATIONAL USE PER YEAR

AT RESALE
RZ67D STILL HAS
15,000 MAINTENANCE
FREE HOURS
OF LIFE

Panasonic

BUSINESS

PT-RZ660 / RZ770 / RZ970

Auflösung - WUXGA

Kontrast - 10,000:1

Lautstärke

41dB (RZ970)

37dB (RZ770)

35dB (RZ660)

Gewicht – ca. 23kg

PT-RZ660 6.200lm (Center) / 6.000lm

PT-RZ770 7.200lm (Center) / 7.000lm

PT-RZ770 10.000lm (Center) / 9.400lm



Panasonic

BUSINESS

Laser-Projektoren im Vergleich



- Laser Showcase – Manchester 2016
- 6.000 Lumen Laser-Projektoren 'Shoot-out'



Panasonic
PT-RZ660

Vs



Sony
VPL-FHZ65



Christie
DWU700-GS



Epson
EB-L1100U



Digital projection
E-Vision laser 6500



Canon
LX-MU600Z

Panasonic

BUSINESS

Laser-Projektoren im Vergleich

Marke	Canon	Christie	Digital Projection	Epson	Panasonic	Sony
Modell	LX-MU600Z	DWU700-GS	E-Vision Laser 6500	EB-L1100U	PT-RZ660	VPL-FHZ65
Technologie	1-DLP	1-DLP	1-DLP	3-LCD	1-DLP	3-LCD
Helligkeit (lm)	6.800	6.500	6.500	6.000	6.000	6.000
Lichtquelle	Blauer Laser/ Phosphor					
Auflösung	WUXGA (1.920 x 1.200)					

Eckdaten des Shoot-outs

Veranstalter:	namhafter Systemintegrator aus Nord-England
Zeitpunkt:	Oktober 2016
Jury:	Branchenexperten aus dem Bildungswesen, Gesundheits- und Unternehmenssektor
Art:	Blindtest (verdeckte Projektoren)
Zuspielung:	alle parallel über gleich lange HDMI-Kabel; Demoaufnahmen über fest verlegte Kabel-Schleifen bestehend aus Standbildern, Testbildern und Videos
Rahmenbedingungen:	nur Standardobjektive; Hersteller durften vor dem Shoot-Out keine Einstellungen ihrer Projektoren vornehmen und mussten anschließend den Raum verlassen

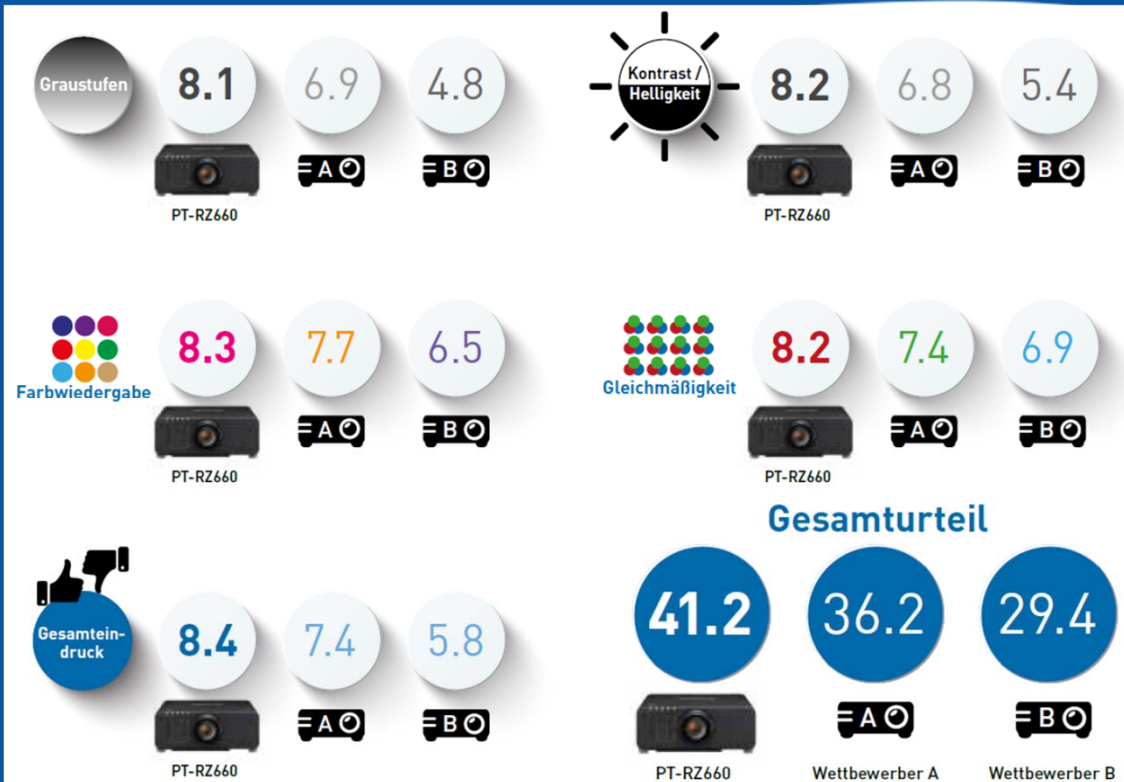
Panasonic

BUSINESS

GEWINNER
Panasonic PT-RZ660



Laser-Projektoren im Vergleich



Panasonic
BUSINESS

Vielen Dank für Ihre Aufmerksamkeit!



LinkRay™

- Einzigartige Panasonic eigene Technologie
- Information zu Exponaten
- Übersetzungen
- Promotionen & Einkaufsaktionen



Panasonic

BUSINESS

LinkRay Technologie



Einzelhandel & Werbung



Museum & Ausstellung



Transportwesen

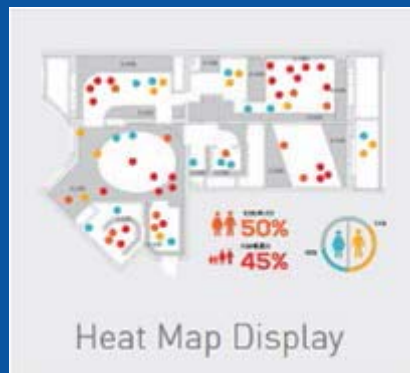


Kundenkreativität



Panasonic

BUSINESS



LinkRay Technologie

- Vielfältige LinkRay Analyse
- Interaktionen zwischen Produkten und Promotionen
- Umfangreiche Analyse durch Kameratechnik
- Alter- und Geschlechteranalyse für Besucherprofil
- Heatmapping für Besucherprofile von
- Gewährleistung des Datenschutzes durch Verpixelung