Станция хранения и обработки данных CLIPSTER 6

Архангельск (8182)63-90-72
Астана (7172)727-132
Астрахань (8512)99-46-04
Барнаул (3852)73-04-60
Белгород (4722)40-23-64
Брянск (4832)59-03-52
Владивосток (423)249-28-31
Волгоград (844)278-03-48
Вологда (8172)26-41-59
Воронеж (473)204-51-73
Екатеринбург (343)384-55-89
Иваново (4932)77-34-06
Ижевск (3412)26-03-58
Иркутск (395)279-98-46
Казань (843)206-01-48
Калининград (4012)72-03-81
Калуга (4842)92-23-67
Кемерово (3842)65-04-62
Киров (8332)68-02-04
Краснодар (861)203-40-90
Красноярск (391)204-63-61
Курск (4712)77-13-04
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Набережные Челны (8552)20-53-41
Нижний Новгород (831)429-08-12
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Омск (3812)21-46-40
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Оренбург (3532)37-68-04
Пенза (8412)22-31-16
Пермь (342)205-81-47
Ростов-на-Дону (863)308-18-15
Рязань (4912)46-61-64
Самара (846)206-03-16
Санкт-Петербург (812)309-46-40
Саратов (845)249-38-78
Севастополь (8692)22-31-93
Симферополь (3652)67-13-56
Смоленск (4812)29-41-54
Сочи (862)225-72-31
Ставрополь (8652)20-65-13
Сургут (3462)77-98-35
Тверь (4822)63-31-35
Томск (3822)98-41-53
Тула (4872)74-02-29
Тюмень (3452)66-21-18
Ульяновск (8422)24-23-59
Уфа (347)229-48-12
Хабаровск (4212)92-98-04
Челябинск (351)202-03-61
Череповец (8202)49-02-64
Ярославль (4852)69-52-93

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R&S®CLIPSTER

The R&S®CLIPSTER is the gold standard solution for mastering and distribution of feature films and episodic TV. It provides a powerful way to edit any type of media, in any resolution, and create a high-quality professional deliverable that meets stringent, professional delivery specifications. The R&S®CLIPSTER provides a foundation for post-production vendors to build services upon.

KEY FEATURES

Flexible color format
The R&S®CLIPSTER uses a high-precision, procedural color-processing pipeline to mix and match any color format in the timeline, allowing the user to select the target color container that all clips will be converted to.

Mix and match codecs
Whether working with compressed or uncompressed formats, the R&S®CLIPSTER can handle them all at the same time. Mix and match different codecs alongside uncompressed frame sequences – the R&S®CLIPSTER won't skip a beat.

Mix resolutions
If you have a mix of HD, 2K, UHD and 4K, each can be combined within the same timeline and formatted to the desired output, and can be switched on the fly.

Input any file type or video signal
The R&S®CLIPSTER supports an extensive list of file formats that are supported natively in the timeline without any preprocessing, and captures material in the highest quality from SDI inputs.

Conforming to non-linear timeline
The R&S®CLIPSTER timeline works just like a nonlinear editor, including a conforming tool to aid in assembly. Combining a nonlinear timeline with the power of the resolution- and format-independent processing engine behind it makes the R&S®CLIPSTER a workhorse for high-end post-production workflows.

Customizable file-based media
The R&S®CLIPSTER can output to an extensive list of file formats through a customizable generic file output setup. The finalize tool allows you to customize an output to meet a proprietary delivery specification.

Video-tape-based media
The R&S®CLIPSTER has a tried and true I/O tool to create tape deliverables in SD and HD directly from the timeline.

Standardized file-based media
The R&S®CLIPSTER has highly refined output wizards to simplify the creation of standardized formats such as DCP, IMP, AS02 and AS11, so that the outputs are constrained to comply with standards and ensure interoperability.

- Flexible color format
- Mix and match codecs
- Mix resolutions
- Input flexibility
- Nonlinear timeline
- Customizable media
- Tape-based media
- Standardized media

APPLICATIONS

Professionals all over the world highly esteem the R&S®CLIPSTER for its flexibility and dependability. The R&S®CLIPSTER is the trusted solution for businesses from boutique facilities to major movie studios in their post-production workflow chain. Besides its outstanding transcoding capabilities, the R&S®CLIPSTER excels in mastering applications such as QC, conforming and the creation of deliverables. Going from any source file to any target, the R&S®CLIPSTER provides the versatility to produce generic AV file formats as well as constrained packages for DCI and IMF.

HIGHLIGHTS

HDR conversion

High dynamic range allows artists to express their creative intent with more freedom than ever before. To preserve the image quality of the source in all subsequent masters, high-precision color processing is mandatory. But pixel data is just one component. HDR metadata is equally important to make sure HDR-capable display devices reproduce the content as intended. The R&S®CLIPSTER provides the right tools to combine all video, audio and metadata sources and generate standard-compliant outputs with the highest fidelity.

IMF

The interoperable master format is on the rise to become the new standard in content distribution. Many studios and vendors have already adopted IMF to benefit from its workflow enhancements. The R&S®CLIPSTER supports these workflows with a comprehensive toolset to efficiently create new packages and perform downstream processes such as merging and versioning.

DCP

The digital cinema (r)evolution, to which R&S®CLIPSTER contributed in large part, has matured and so have the comprehensive workflow solutions in R&S®CLIPSTER itself.

Supporting all standards from InterOp to SMPTE DCP in both 2K and 4K as well as multichannel sound (including Dolby Atmos®) and DCI subtitles. R&S®CLIPSTER is the reliable solution to generate both full and supplemental packages with confidence. By building in special hardware accelerators for faster than realtime processing, Rohde&Schwarz has ensured that making packages with R&S®CLIPSTER is a breeze.

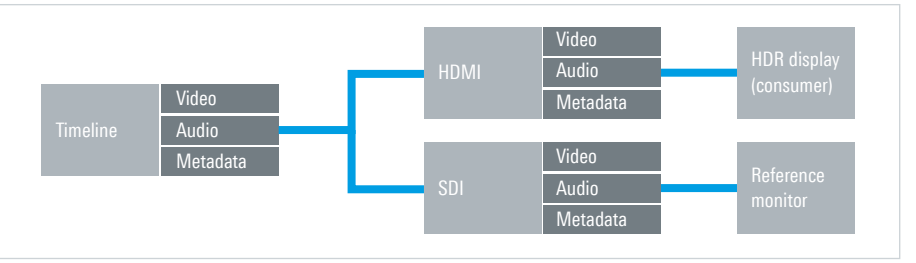
SOFTWARE CONFIGURATIONS

	Playback to SDI/ HDMI outputs	DCP mastering	IMF mastering	Finalize	VTR capture/ layoff	Other delivery tools
Play	•					
Play + DCP mastering	•	•		•		
Play + IMF mastering	•		•	•		
Complete	•	•	•	•	•	•

WORKFLOWS

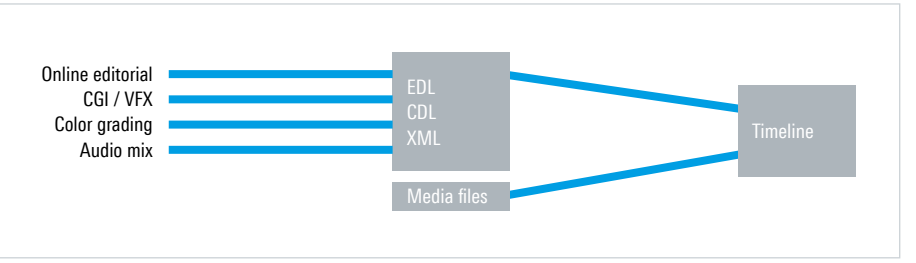
QC

- Visually validate any source or delivery package
- Output up to 4K 60p through SDI, and up to 4K 120p through HDMI, both with embedded HDR metadata
- Control playback externally via RS-422, LTC chase, or SOAP interface
- Overlay subtitles and any metadata available



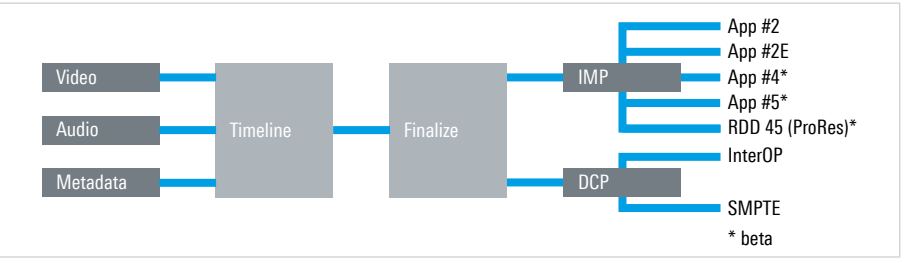
Conforming

- Build timelines from EDL, FCP XML, cutlists
- Re-arrange track order
- Link media to ALE
- Export timeline to EDL



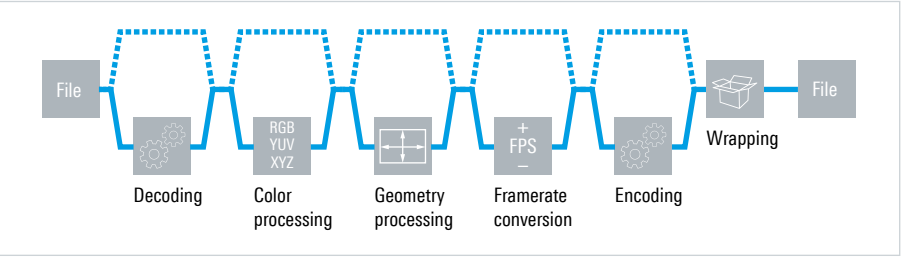
Package creation

- Create new DCI and IMF packages from any source media type
- Efficiently create alternate versions of existing packages by re-using existing assets
- IMF merge tool to consolidate IMPs
- Find CPL by metadata via the R&S®Spycer database
- DCP security: hardware-based private key
- DCP KDM management
- DCP validation tool



Generic file transcoding

- Choose specific configuration for each output type
- Select color parameters, raster, codec and wrapper individually
- Render subtitles as separate track files or burn-in to picture
- Create sequences or scene-based renders

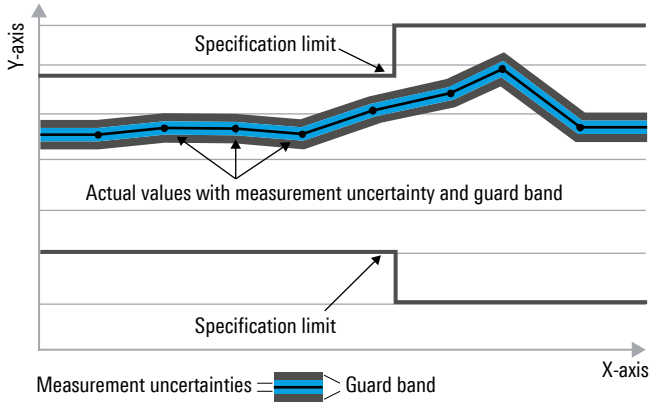


Definitions

General
Product data applies under the following conditions:

- Three hours storage at ambient temperature followed by 30 minutes warm-up operation
- Specified environmental conditions met
- Recommended calibration interval adhered to
- All internal automatic adjustments performed, if applicable

Specifications with limits
Represent warranted product performance by means of a range of values for the specified parameter. These specifications are marked with limiting symbols such as <, ≤, >, ≥, ±, or descriptions such as maximum, limit of, minimum. Compliance is ensured by testing or is derived from the design. Test limits are narrowed by guard bands to take into account measurement uncertainties, drift and aging, if applicable.



Non-traceable specifications with limits (n. trc.)
Represent product performance that is specified and tested as described under “Specifications with limits” above. However, product performance in this case cannot be warranted due to the lack of measuring equipment traceable to national metrology standards. In this case, measurements are referenced to standards used in the Rohde & Schwarz laboratories.

Specifications without limits
Represent warranted product performance for the specified parameter. These specifications are not specially marked and represent values with no or negligible deviations from the given value (e.g. dimensions or resolution of a setting parameter). Compliance is ensured by design.

Typical data (typ.)
Characterizes product performance by means of representative information for the given parameter. When marked with <, > or as a range, it represents the performance met by approximately 80 % of the instruments at production time. Otherwise, it represents the mean value.

Nominal values (nom.)
Characterize product performance by means of a representative value for the given parameter (e.g. nominal impedance). In contrast to typical data, a statistical evaluation does not take place and the parameter is not tested during production.

Measured values (meas.)
Characterize expected product performance by means of measurement results gained from individual samples.

Uncertainties
Represent limits of measurement uncertainty for a given measurand. Uncertainty is defined with a coverage factor of 2 and has been calculated in line with the rules of the Guide to the Expression of Uncertainty in Measurement (GUM), taking into account environmental conditions, aging, wear and tear.

Device settings and GUI parameters are designated with the format “parameter: value”.

Non-traceable specifications with limits, typical data as well as nominal and measured values are not warranted by Rohde & Schwarz.

In line with the 3GPP/3GPP2 standard, chip rates are specified in million chips per second (Mcps), whereas bit rates and symbol rates are specified in billion bits per second (Gbps), million bits per second (Mbps), thousand bits per second (kbps), million symbols per second (Msps) or thousand symbols per second (ksps), and sample rates are specified in million samples per second (Msample/s). Gbps, Mcps, Mbps, Msps, kbps, ksps and Msample/s are not SI units.

Key features

R&S®CLIPSTER is a mastering workstation enabling content owners, content creators and service vendors to generate master files and deliverables with highest fidelity and efficiency. The system supports all common uncompressed and compressed single frame and container file formats for image data, as well as various audio and metadata formats, all of which are processed directly from their respective file sources without rendering intermediate files. Various hardware options are available to accelerate processing speed and enhance precision.

- SD to UHD/4K 120p video I/O
- High dynamic range (HDR) color processing
- Multi-codec capability and best-in-class picture quality
- Mixed format and codec back-to-back playout
- Real-time HD downconversion on dedicated output

Specifications

System configuration	• 4 RU rackmount • up to 16 front-mounted, hot-swappable solid-state media drives • 1+1 redundant hot-swappable power supplies 1600 W (100 V to 240 V AC) • AMD EPYC™ 24-core processor • 128 Gbyte DDR4 RAM • 1 × 1 Gigabit Ethernet port (IPMI) • 2 × 10 Gigabit Ethernet ports • 1 × USB 3.2 Gen2 Type C port (rear) • 2 × USB 3.2 Gen1 Type A ports (rear) • 2 × USB 3.1 Gen1 Type A ports (front) • PCIe 4.0 technology • Windows operating system

Connectivity (inputs and outputs)

[High Definition] Serial Digital Interface ([HD-]SDI)	video inputs with embedded audio	8 × 3G BNC connectors
	video outputs with embedded audio	8 × 3G BNC connectors
HD-SDI downconversion	video output	1 × 1.5G BNC
Genlock	reference sync input	1 × BNC bi-level, tri-level sync
RS-422 serial control		2 × RJ-45 (adapter cables to 9-pin Sub-D connector included)
LTC	input	XLR-3F connector
	output	XLR-3M connector
AES/EBU audio	input/output	2 × DB-25F, with XLR breakout cable
Analog audio	output	1 × 6.3 mm (1/4") headphone jack
10 Gigabit Ethernet network		2 × RJ-45
1 Gigabit Ethernet network		1 × RJ-45

Video I/O formats

SDI 270 Mbps		
SMPTE ST 259	525i	29.97 fps
SMPTE ST 259	625i	25 fps
SDI 1.5G single-link		
SMPTE ST 274	1080i, 1080p, 1080PsF	25 fps, 29.97 fps
SMPTE ST 296	720p	25 fps, 29.97 fps, 50 fps, 59.94 fps
SDI 3G single-link (level A or B)		
SMPTE ST 424	1080p	50 fps, 59.94 fps
SDI 3G multi-link		
SMPTE ST 425 (dual-link)	2160p	25 fps, 29.97 fps
SMPTE ST 425 (quad-link)	2160p	50 fps, 59.94 fps
UHD to HD downconversion		parallel HD-SDI output

Audio

Digital audio, embedded in SDI stream	output	8 pairs (16 channels)
	input	8 pairs (16 channels)
Digital audio, AES/EBU on DB-25	output	up to 8 pairs (16 channels), balanced
	input	up to 8 pairs (16 channels), balanced
	impedance	110 Ω
Analog audio	output	1 pair (2 channels), unbalanced
	impedance	75 Ω
	output level	1.55 V (at 600 Ω)

Timecode

Timecode	LTC	balanced analog I/O (XLR-3)
	HD-SDI: HD HANC/VANC	read, generate and write discontinuous ATC/LTC, ATC/VITC1 and ATC/VITC2
	HD-SDI: SD VBI	read discontinuous VITC1 and VITC2

General data

Environmental conditions		
Temperature	operating temperature range	+10 °C to +35 °C
	storage temperature range	–40 °C to +65 °C
Relative humidity	operating	10 % to 80 %, with +29 °C maximum dew point
	storage	5 % to 95 %, with +33 °C maximum dew point; atmosphere must be noncondensing at all times
Power rating		
Rated voltage		100 V to 240 V AC
Rated frequency		50 Hz/60 Hz
Power consumption	maximum	1100 W (100 V to 240 V AC)
	average	414 W (100 V to 120 V AC, 60 Hz)
		397 W (200 V to 240 V AC, 50 Hz)
BTU	maximum	3755 BTU/h
	average	1413 BTU/h
		1355 BTU/h
Product conformity		
Electrical safety		in line with IEC 62368-1
Electromagnetic compatibility (EMC), class A devices	USA and Canada	FCC 47 CFR part 15, subpart B
	Europe	in line with EN 55032:2015, EN 55035:2017, EN 61000-3-2, EN 61000-3-3
	South Korea	in line with KS C 9610-4-11:2020
Conformity marks	North America	FCC
	Europe	CE
	Australia/New Zealand	RCM
	South Korea	KC
Dimensions and weight		
Dimensions	W × H × D	430 mm × 174.3 mm × 681.25 mm (16.93 in × 6.86 in × 26.82 in)
Weight	with disks and rails	max. 45 kg (99 lb)

Rack support

Rackmounting		
Rails		sliding rails for tool-less mounting in 4-post racks with square or unthreaded round holes

Ordering information

Designation	Type	Order No.
Base units		
R&S®CLIPSTER 6 Mk 2	R&S®CLP6-MK2	2904.4201.02
Hardware options		
JPEG2000 accelerator	R&S®CLP6-B24	2904.1125.03
Floating point processing	R&S®CLP6-B18	2904.1102.03
Internal RAID controller	R&S®CLP6-B30	2904.4301.02
SSD storage 7.68 TB	R&S®CLP6-B26	2904.4324.02
SSD storage 15.36 TB	R&S®CLP6-B27	2904.4324.03
SSD storage 30.72 TB	R&S®CLP6-B28	2904.4324.04
SSD storage 61.44 TB	R&S®CLP6-B29	2904.4324.05
SSD storage 122.88 TB	R&S®CLP6-B31	2904.4324.06
100 Gbit dual-port QSFP28 Ethernet adapter	R&S®CLP6-B25	2904.1160.00
16 Gbit dual-port Fibre Channel adapter	R&S®CLP6-B11	2900.8148.00
16 Gbit quad-port Fibre Channel adapter	R&S®CLP6-B12	2904.8377.00
DisplayPort/HDMI 2.0a adapter	R&S®CLP6-B20	2904.1060.03
Software options		
R&S®CLIPSTER software PLAY	R&S®CLP6-K18	2904.1390.02
R&S®CLIPSTER software PLAY+DCI	R&S®CLP6-K19	2904.1390.03
R&S®CLIPSTER software PLAY+IMF	R&S®CLP6-K20	2904.1390.04
R&S®CLIPSTER software COMPLETE	R&S®CLP6-K21	2904.1390.05

Service level agreements

Designation	Order No.
R&S®CLIPSTER SLA basic 1 year	2902.2347.02
R&S®CLIPSTER SLA basic upgrade to advanced	2902.2347.38
R&S®CLIPSTER SLA advanced 1 year	2902.2347.08
R&S®CLIPSTER SLA advanced upgrade to premium	2902.2347.39
R&S®CLIPSTER SLA premium 1 year	2902.2347.14

Professional support

Designation	Type	Order No.
Remote system installation and integration support per day Service technician for remote installation/integration (via internet) of Rohde & Schwarz file-based media systems/solutions (on business days)	R&S®REMDAY	2902.2482.00
On-site installation per day Service technician for on-site installation of Rohde & Schwarz file-based media systems/solutions (on business days) Travel costs are charged extra. Number of days charged will be based on real on-site expense (partial days charged as full days). Travel days are not charged.	R&S®ONSIDAY	2902.2524.00
On-site installation per weekend day Service technician for on-site installation of Rohde & Schwarz file-based media systems/solutions (on weekend days) Travel costs are charged extra. Number of days charged will be based on real on-site expense (partial days charged as full days). Travel days are not charged.	R&S®ONSIWEDAY	2902.2530.00
On-site support per day Service technician for on-site support for Rohde & Schwarz file-based media systems/solutions (on business days) Travel costs are charged extra. Number of days charged will be based on real on-site expense (partial days charged as full days). Travel days are not charged.	R&S®ONSSDAY	2902.2553.00
On-site support per weekend day Service technician for on-site support for Rohde & Schwarz file-based media systems/solutions (on weekend days) Travel costs are charged extra. Number of days charged will be based on real on-site expense (partial days charged as full days). Travel days are not charged.	R&S®ONSSWEDAY	2902.2560.00
On-site training per day On-site training for Rohde & Schwarz file-based media systems/solutions per business day Travel costs are charged extra. Number of days charged will be based on real on-site expense (partial days charged as full days). Travel days are not charged.	R&S®ONSTDAY	2902.2576.00
Travel costs for service technician	R&S®TRCOST	2901.1847.00