
COFDM SYSTEMS

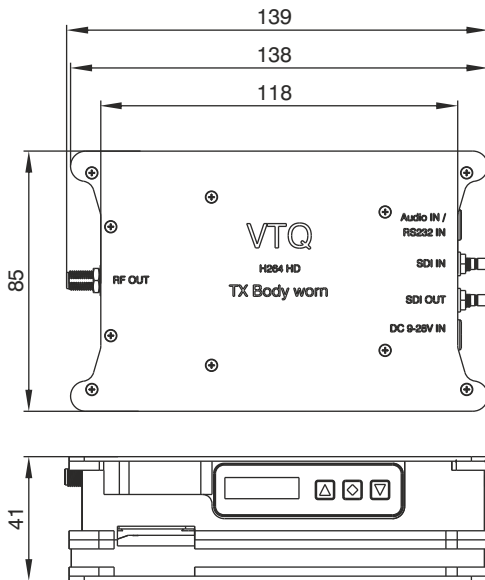




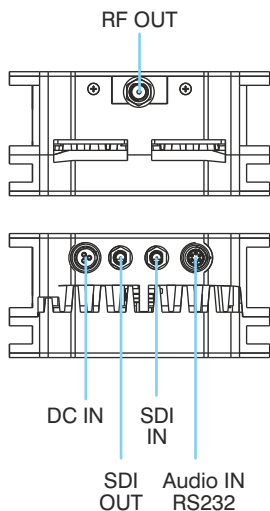
Body Worn HD

- + SDI IN / OUT
- + RS232 embedded
- + extrem robuste und temperaturbeständige Bauweise
extrem rugged and temperature resistant housing
- + für Temperaturbereiche von -20°C - +60°C
works at temperatures from -20°C to +60°C

Abmessungen // Dimensions



Anschlüsse // Connectors



Technische Daten // Technical details

HF VIDEO	
Frequenzbereiche und Sendeleistungen // Frequency ranges and transmission power	300-470MHz: 200mW
	800-900MHz: 200mW
	1000-1500MHz: 200mW
	1500-2000MHz: 200mW
	2000-2700MHz: 200mW
	3000-3700MHz: 200mW
	4400-4800MHz: 200mW
	4800-5500MHz: 200mW
	5500-6000MHz: 200mW
Modulation // Modulation	COFDM (QPSK, 16QAM), (64QAM optional)
Bandbreite // Band width	4, 5, 6, 7, 8MHz (1.25, 2.5MHz optional)
Verzögerung // Delay	22ms depend on mode
Kompression // Compression	H.264 (embedded audio)
Videoformate // Video format	1080i50/59,94/60
	1080p23,98/24/25/29,97/30, 1080psf23,98/24/25/29,97/30
	720p23,98/24/25/29,97/30/50/59,94/60, 576i50, 480i59,94/60
RS232	embedded
Verschlüsselung // Encryption	AES / 3DES

PHYSIKALISCHE EIGENSCHAFTEN // PHYSICAL CHARACTERISTIC	
Spannungsversorgung // Power supply	9 - 40V DC
Leistungsaufnahme // Power consumption	13W (@ 200mW)
Temperaturbereiche // Temperature ranges (andere auf Anfrage // others on request)	
Betrieb/Lagerung // Operation/Storage	-20°C - +60°C / -20°C - +65°C
Abmessungen // Dimensions	139 x 85 x 41mm
Gewicht // Weight	400g

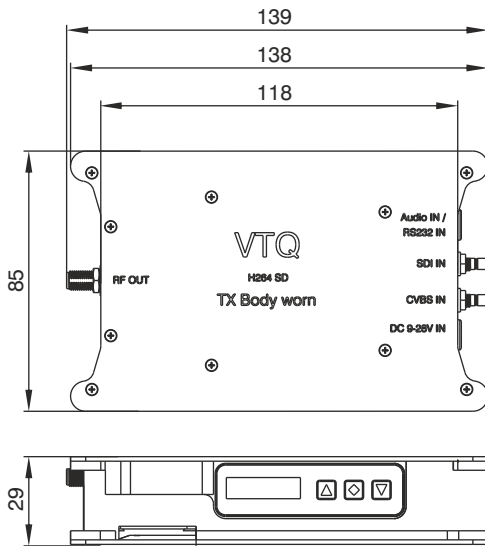
ANSCHLÜSSE // CONNECTORS	
SDI IN	SMB
SDI OUT	SMB
Audio IN / RS232	6-pol. LEMO
DC IN	3-pol. LEMO
RF OUT	SMA



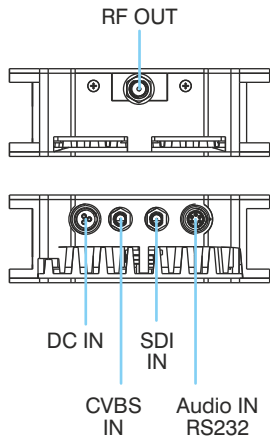
Body Worn SD

- + SDI IN
- + FBAS // CVBS
- + RS232 embedded
- + extrem robuste und temperaturbeständige Bauweise
extrem rugged and temperature resistant housing
- + für Temperaturbereiche von -35°C - +60°C
works at temperatures from -35°C to +60°C

Abmessungen // Dimensions



Anschlüsse // Connectors



Technische Daten // Technical details

HF VIDEO	
Frequenzbereiche und Sendeleistungen //	300-470MHz: 200mW
Frequency ranges and transmission power	800-900MHz: 200mW
	1000-1500MHz: 200mW
	1500-2000MHz: 200mW
	2000-2700MHz: 200mW
	3000-3700MHz: 200mW
	4400-4800MHz: 200mW
	4800-5500MHz: 200mW
	5500-6000MHz: 200mW
Modulation // Modulation	COFDM (QPSK, 16QAM) (64QAM optional)
Bandbreite // Band width	6, 7, 8MHz
Verzögerung // Delay	2ms depend on mode
Kompression // Compression	H.264 (embedded audio)
Videoformate // Video format	576i50, 480i59,94/60
RS232	embedded
Verschlüsselung // Encryption	AES / 3DES

PHYSISCHE EIGENSCHAFTEN // PHYSICAL CHARACTERISTIC	
Spannungsversorgung // Power supply	9 - 40V DC
Leistungsaufnahme // Power consumption	~6W (@ 200mW)
Temperaturbereiche // Temperature ranges (andere auf Anfrage // others on request)	
Betrieb/Lagerung // Operation/Storage	-35°C - +60°C / -35°C - +60°C
Abmessungen // Dimensions	139 x 85 x 29mm
Gewicht // Weight	300g

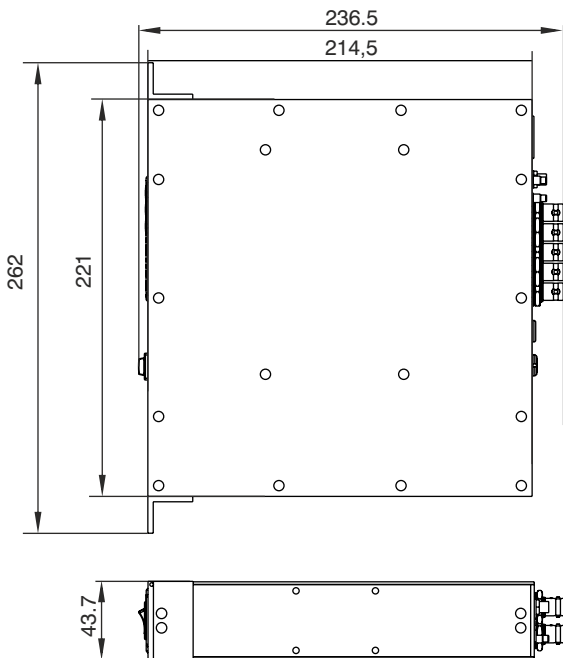
ANSCHLÜSSE // CONNECTORS	
SDI IN	SMB
CVBS IN	SMB
Audio IN / RS232	6-pol. LEMO
DC IN	3-pol. LEMO
RF OUT	SMA

SV TX HD mit Pre Dist.

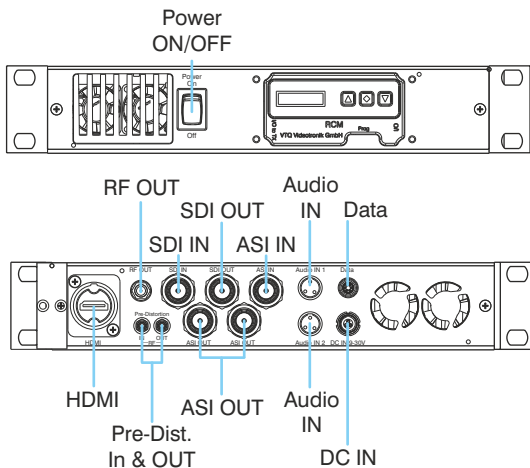


- + TCPC & MCPC possible
- + ASI IN
- + ASI OUT
- + HDMI IN
- + SDI IN / OUT
- + Pre-Distortion Funktion // function
- + RS232 embedded
- + RS485 remote

Abmessungen // Dimensions



Anschlüsse // Connectors



Technische Daten // Technical details

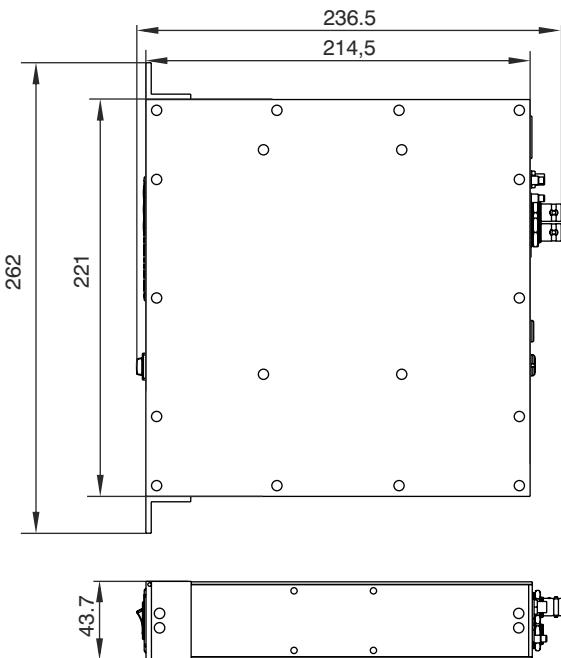
HF VIDEO	
Frequenzbereiche und Sendeleistungen // Frequency ranges and transmission power	300-470MHz: 200mW
	800-900MHz: 200mW
	1000-1500MHz: 200mW
	1500-2000MHz: 200mW
	2000-2700MHz: 200mW
	3000-3700MHz: 200mW
	4400-4800MHz: 200mW
	4800-5500MHz: 200mW
	5500-6000MHz: 200mW
Modulation // Modulation	COFDM (QPSK, 16QAM), (64QAM optional)
Bandbreite // Band width	4, 5, 6, 7, 8MHz (1.25, 2.5MHz optional)
Verzögerung // Delay	22ms depend on mode
Kompression // Compression	H.264 (embedded audio)
Videoformate // Video format	1080i50/59,94/60
	1080p23,98/24/25/29,97/30, 1080psf23,98/24/25/29,97/30
	720p23,98/24/25/29,97/30/50/59,94/60, 576i50, 480i59,94/60
RS232	embedded
Verschlüsselung // Encryption	AES / 3DES
PHYSIKALISCHE EIGENSCHAFTEN // PHYSICAL CHARACTERISTIC	
Spannungsversorgung // Power supply	9 - 40V DC
Leistungsaufnahme // Power consumption	13W (@ 200mW)
Temperaturbereiche // Temperature ranges (andere auf Anfrage // others on request)	
Betrieb/Lagerung // Operation/Storage	-10°C - +50°C / -20°C - +55°C
Abmessungen // Dimensions	236.5 x 262 x 43.7mm
Gewicht // Weight	round about 1700g
ANSCHLÜSSE // CONNECTORS	
RF OUT	SMA
SDI IN	BNC
SDI OUT	BNC
ASI IN	BNC
ASI OUT	BNC
Audio IN	mini XLR
Data	LEMO
HDMI	HDMI
RF IN Pre-Distortion	SML
DC IN	LEMO

SV TX HD

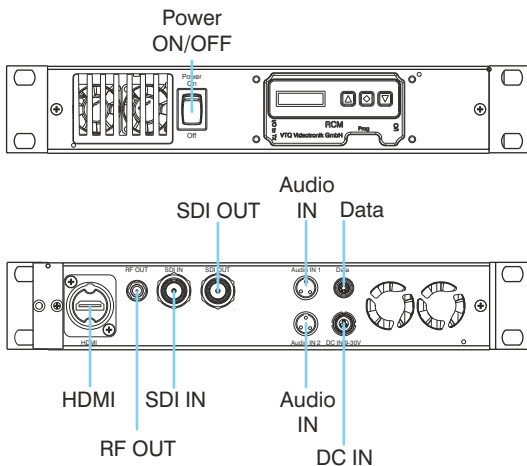


- + SDI IN (HD)
- + SDI OUT (HD)
- + HDMI IN
- + RS232 embedded
- + für Temperaturbereiche von -35°C - +60°C
works at temperatures from -35°C to +60°C

Abmessungen // Dimensions



Anschlüsse // Connectors



Technische Daten // Technical details

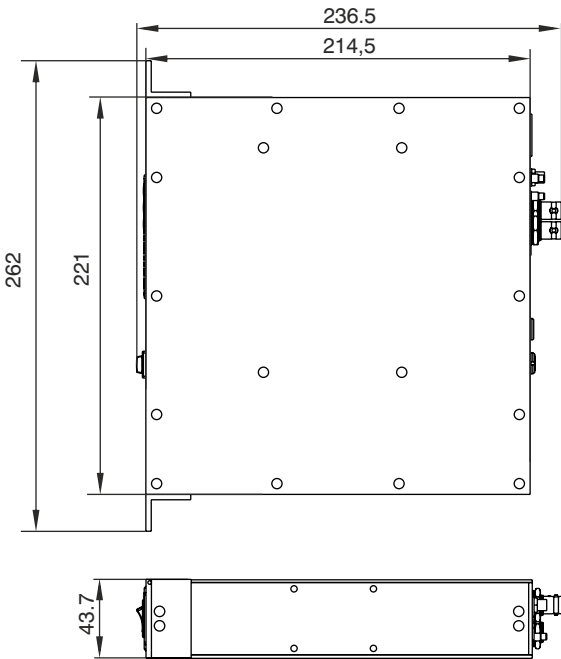
HF VIDEO	
Frequenzbereiche und Sendeleistungen // Frequency ranges and transmission power	300-470MHz: 200mW
	800-900MHz: 200mW
	1000-1500MHz: 200mW
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	4800-5500MHz: 200mW
	5500-6000MHz: 200mW
Modulation // Modulation	COFDM (QPSK, 16QAM), (64QAM optional)
Bandbreite // Band width	4, 5, 6, 7, 8MHz (1.25, 2.5MHz optional)
Verzögerung // Delay	22ms depend on mode
Kompression // Compression	H.264 (embedded audio)
Videoformate // Video format	1080i50/59,94/60
	1080p23,98/24/25/29,97/30, 1080psf23,98/24/25/29,97/30
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RS232	embedded
Verschlüsselung // Encryption	AES / 3DES
PHYSIKALISCHE EIGENSCHAFTEN // PHYSICAL CHARACTERISTIC	
Spannungsversorgung // Power supply	9 - 40V DC
Leistungsaufnahme // Power consumption	13W (@ 200mW)
Temperaturbereiche // Temperature ranges (andere auf Anfrage // others on request)	
Betrieb/Lagerung // Operation/Storage	-10°C - +50°C / -20°C - +55°C
Abmessungen // Dimensions	236.5 x 262 x 43.7mm
Gewicht // Weight	round about 1700g
ANSCHLÜSSE // CONNECTORS	
HDMI	HDMI
RF OUT	SMA
SDI IN	BNC
SDI OUT	BNC
Audio IN	mini XLR
Data	LEMO
DC IN	LEMO

SV TX SD mit Pre Dist.

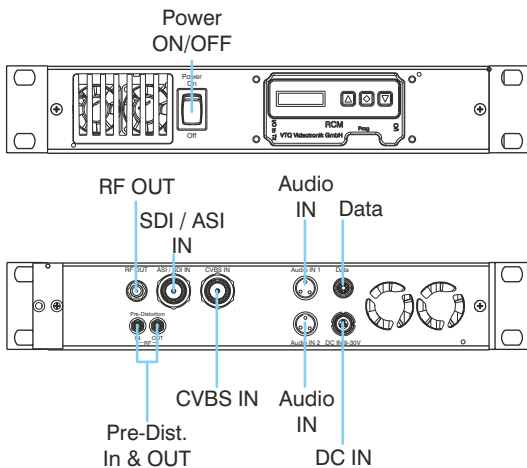


- + TCPC & MCPC possible
- + ASI IN
- + SDI IN
- + FBAS // CVBS
- + Pre-Distortion Funktion // function
- + RS232 embedded
- + RS485 remote
- + für Temperaturbereiche von -35°C - +60°C // works at temperatures from -35°C to +60°C

Abmessungen // Dimensions



Anschlüsse // Connectors



Technische Daten // Technical details

HF VIDEO	
Frequenzbereiche und Sendeleistungen // Frequency ranges and transmission power	300-470MHz: 200mW
	800-900MHz: 200mW
	1000-1500MHz: 200mW
	1500-2000MHz: 200mW
	2000-2700MHz: 200mW
	3000-3700MHz: 200mW
	4400-4800MHz: 200mW
	4800-5500MHz: 200mW
	5500-6000MHz: 200mW
Modulation // Modulation	COFDM (QPSK, 16QAM), (64QAM optional)
Bandbreite // Band width	6, 7, 8MHz
Verzögerung // Delay	3ms depend on mode
Kompression // Compression	H.264 (embedded audio)
Videoformate // Video format	576i50, 480i59,94/60
RS232	embedded
Verschlüsselung // Encryption	AES / 3DES

PHYSIKALISCHE EIGENSCHAFTEN // PHYSICAL CHARACTERISTIC	
Spannungsversorgung // Power supply	9 - 40V DC
Leistungsaufnahme // Power consumption	~6W (@ 200mW)
Temperaturbereiche // Temperature ranges (andere auf Anfrage // others on request)	
Betrieb/Lagerung // Operation/Storage	-35°C - +60°C / -35°C - +60°C
Abmessungen // Dimensions	236.5 x 262 x 43.7mm
Gewicht // Weight	round about 1700g

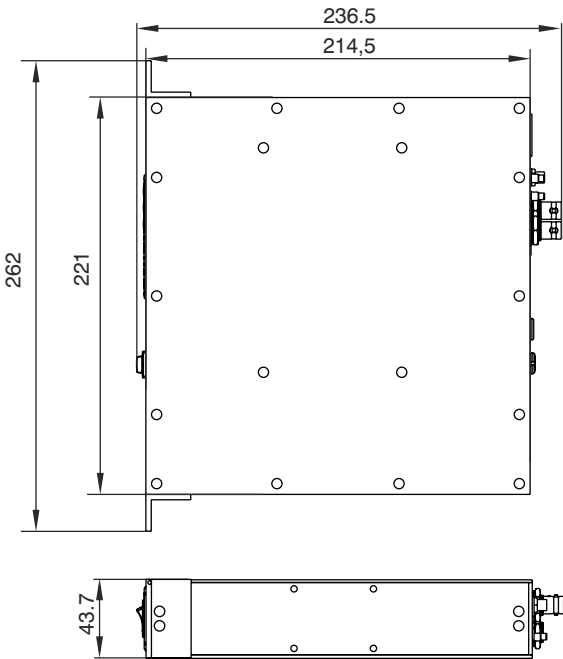
ANSCHLÜSSE // CONNECTORS	
RF OUT	SMA
SDI/ ASI IN	BNC
CVBS IN	BNC
Audio IN	mini XLR
Data	LEMO
RF IN Pre-Distortion	SML
DC IN	LEMO

SV TX SD



- + **TCPC & MCPC possible**
- + SDI IN (SD)
- + FBAS IN // CVBS IN
- + ASI IN
- + RS232 embedded
- + für Temperaturbereiche von -35°C - +60°C // works at temperatures from -35°C to +60°C

Abmessungen // Dimensions

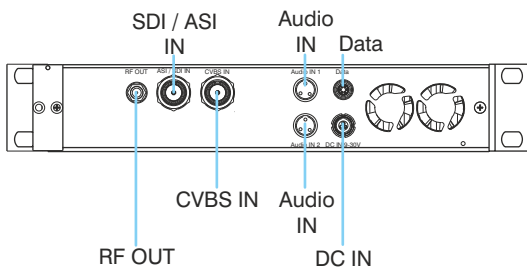
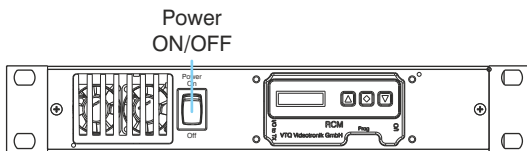


Technische Daten // Technical details

HF VIDEO	
Frequenzbereiche und Sendeleistungen // Frequency ranges and transmission power	300-470MHz: 200mW 800-900MHz: 200mW 1000-1500MHz: 200mW 1500-2000MHz: 200mW 2000-2700MHz: 200mW 3000-3700MHz: 200mW 4400-4800MHz: 200mW 4800-5500MHz: 200mW 5500-6000MHz: 200mW
Modulation // Modulation	COFDM (QPSK, 16QAM), (64QAM optional)
Bandbreite // Band width	6, 7, 8MHz
Verzögerung // Delay	3ms depend on mode
Kompression // Compression	H.264 (embedded audio)
Videoformate // Video format	576i50, 480i59,94/60
RS232	embedded
Verschlüsselung // Encryption	AES / 3DES

PHYSIKALISCHE EIGENSCHAFTEN // PHYSICAL CHARACTERISTIC	
Spannungsversorgung // Power supply	9 - 40V DC
Leistungsaufnahme // Power consumption	~6W (@ 200mW)
Temperaturbereiche // Temperature ranges (andere auf Anfrage // others on request)	-35°C - +60°C / -35°C - +60°C
Betrieb/Lagerung // Operation/Storage	-35°C - +60°C / -35°C - +60°C
Abmessungen // Dimensions	236.5 x 262 x 43.7mm
Gewicht // Weight	round about 1700g

Anschlüsse // Connectors



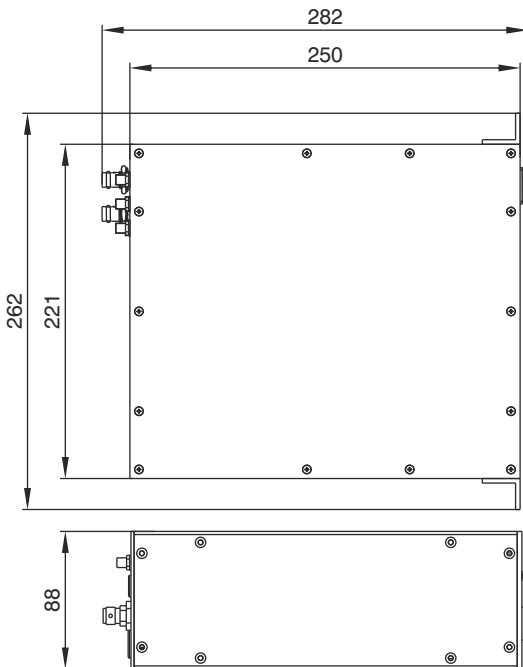
ANSCHLÜSSE // CONNECTORS	
RF OUT	SMA
SDI/ ASI IN	BNC
CVBS IN	BNC
Audio IN	mini XLR
Data	LEMO
DC IN	LEMO



SV Booster

- + Endstufe mit 1W - 20W Sendeleistung // amplifier with 5W / 10W transmission power
- + für Temperaturbereiche von -35°C - +60°C works at temperatures from -35°C to +60°C //

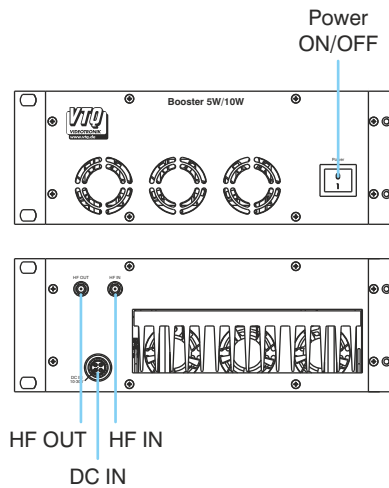
Abmessungen // Dimensions



Technische Daten // Technical details

HF VIDEO	
Frequenzbereiche // Frequency ranges	300MHz - 6.0GHz
Sendeleistungen // Transmission power	1W, 5W, 10W (HF) <i>(weitere auf Anfrage // further on request)</i>
PHYSIKALISCHE EIGENSCHAFTEN // PHYSICAL CHARACTERISTIC	
Spannungsversorgung // Power supply	9 - 40V DC
Leistungsaufnahme // Power consumption	abhängig von der Ausstattung
Temperaturbereiche // Temperature ranges	<i>(andere auf Anfrage // others on request)</i>
Betrieb/Lagerung // Operation/Storage	-10°C - +55°C / -20°C - +60°C
Abmessungen // Dimensions	abhängig von der Ausstattung // depending on model
Gewicht // Weight	abhängig von der Ausstattung // depending on model
ANSCHLÜSSE // CONNECTORS	
HF IN	SMA
HF OUT	SMA
DC IN	3-pol. LEMO

Anschlüsse // Connectors

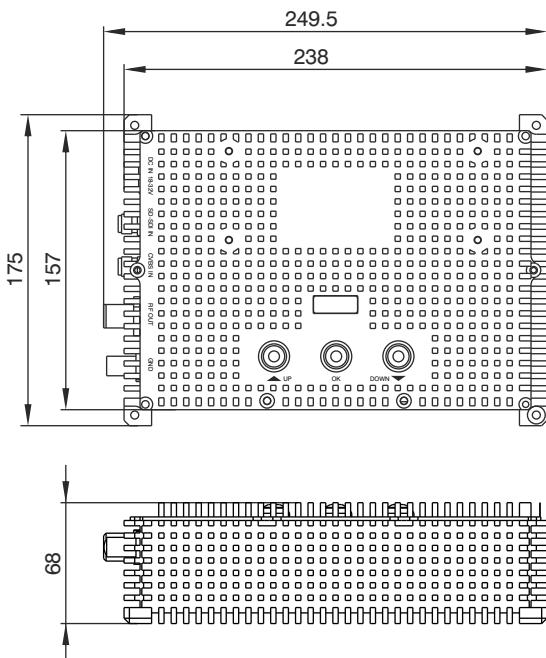




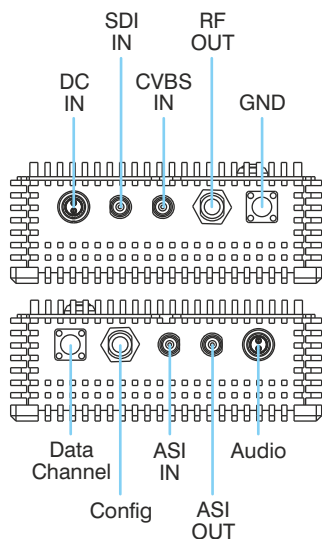
AIRCRAFT TX

- + MIL-STD-704E
- + MIL-STD-810F, method 501.4, procedure II (Operation)
- + MIL-STD-810F, method 502.4, procedure II (Operation)
- + MIL-STD-810F, method 500.4, procedure II (Operation/Air Carriage)
- + MIL-STD-810F, method 507.4
- + MIL-STD-810F, method 514.5, procedure I (General Vibrations)
- + MIL-STD-810F, method 516.5 procedure I (Functional)
- + MIL-STD-461F, CE102/106, CS101/103/104/105/114/115/116, RE102/103, RS103

Abmessungen // Dimensions



Anschlüsse // Connectors



Technische Daten // Technical details

HF VIDEO	
Frequenzbereiche // Frequency ranges	2000 - 2400MHz 2300 - 2700MHz
Sendeleistung // Transmission power	5W / 10W (HF), switchable
Modulation // Modulation	COFDM (DVB-T) (QPSK, 16QAM)
Bandbreite // Band width	6, 7, 8MHz
Kompression // Compression	H.264 (HD) H.264 / MPEG2 (SD)
Verzögerung // Delay	22ms depend on mode (HD) & 3ms depend on mode (SD)
Data channel (RS232)	up to 115kBaud
Verschlüsselung // Encryption	AES
Konfiguration // Configuration	internal / external via RS485
IP-Streaming	UDP/RTP (Unicast/Multicast)

SPANNUNGSVERSORGUNG // POWER SUPPLY	
Spannungsversorgung // Power supply	18 - 32V DC
Spannungsaufnahme // Power consumption	95W (@ 10W)

TEMPERATURBEREICHE // TEMPERATURE RANGES	
Betrieb // Operation	-20°C - +63°C (-35°C - +65°C optional) (andere auf Anfrage // others on request)

PHYSISCHE EIGENSCHAFTEN // PHYSICAL CHARACTERISTIC	
Abmessungen // Dimensions	175 x 249.5 x 68mm
Gewicht // Weight	2600g

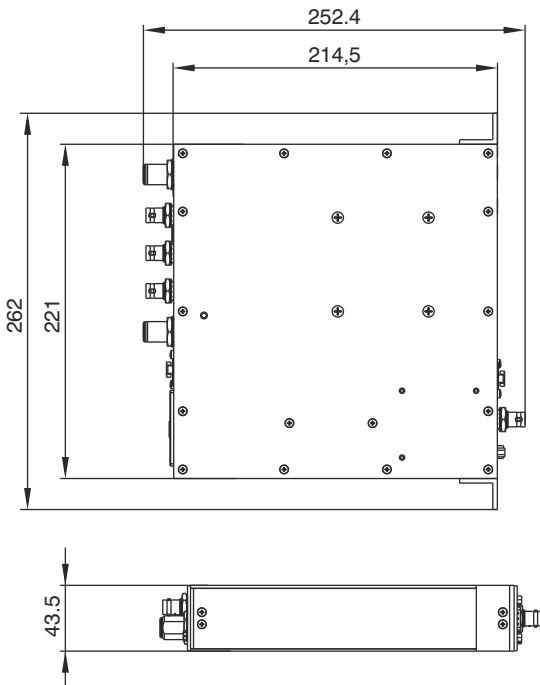
ANSCHLÜSSE // CONNECTORS	
SDI IN	BNC
CVBS IN	BNC
ASI IN	BNC
ASI OUT	BNC
GPS (via data channel)	LEMO
Audio (analogue)	LEMO
Config	LEMO
RF OUT	N
DC IN	LEMO
GND	TNC

SV RX HD AC

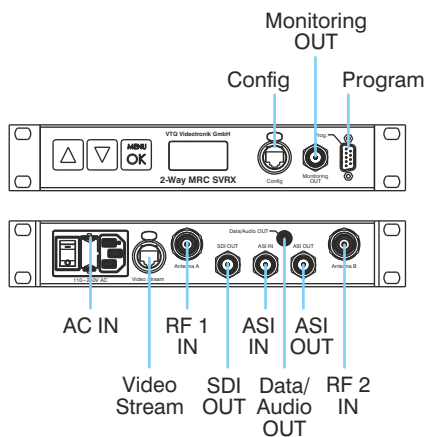


- + ASI Diversity & ASI Multidiversity possible
- + ASI OUT
- + SDI OUT (2x)
- + ASI IN
- + RS232 OUT
- + UDP / RTP - Stream
- + Konfiguration über Netzwerk // network setup
- + AC IN 110-240V

Abmessungen // Dimensions



Anschlüsse // Connectors



Technische Daten // Technical details

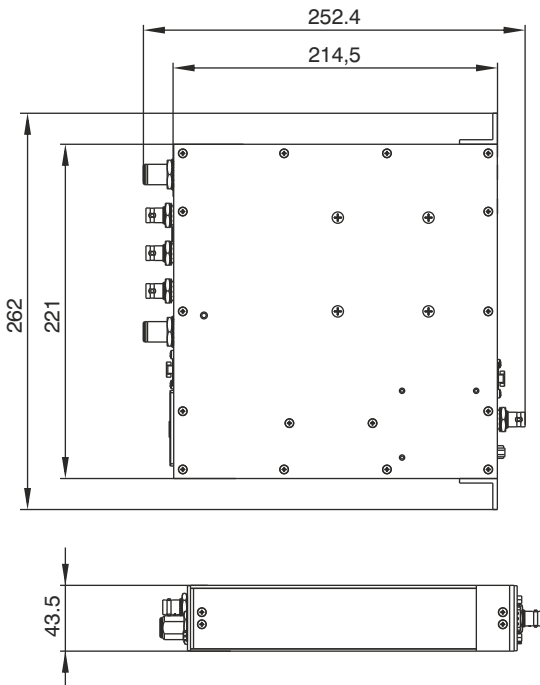
HF VIDEO	
Frequenzbereiche // Frequency ranges	1.4GHz, 2.4GHz, 5.8GHz
Diversity-Typ // Diversity type	2-Way MRC Diversity (FFT-MRC)
Modulation // Modulation	COFDM (QPSK, 16QAM), (64QAM optional)
Bandbreite // Band width	6, 7, 8MHz (1.25, 2.5MHz optional)
Verzögerung // Delay	22ms depend on mode
Kompression // Compression	H.264 (embedded audio)
Videoformate // Video format	1080i50/59,94/60 1080p23,98/24/25/29,97/30, 1080psf23,98/24/25/29,97/30 720p23,98/24/25/29,97/30/50/59,94/60, 576i50, 480i59,94/60
RS232	embedded
Entschlüsselung // Decryption	AES / 3DES
PHYSIKALISCHE EIGENSCHAFTEN // PHYSICAL CHARACTERISTIC	
Spannungsversorgung // Power supply	110-240V AC
Leistungsaufnahme // Power consumption	13W
Temperaturbereiche // Temperature ranges (andere auf Anfrage // others on request)	-10°C - +50°C / -20°C - +55°C
Betrieb/Lagerung // Operation/Storage	-10°C - +50°C / -20°C - +55°C
Abmessungen // Dimensions	252.4 x 262 x 43.5mm
Gewicht // Weight	1800g
ANSCHLÜSSE // CONNECTORS	
SDI OUT	2x BNC
ASI IN	BNC
ASI OUT	BNC
Stream	RJ45
Config.	RJ45
Prog.	9-pol. Sub-D
Audio OUT / RS232	6-pol. LEMO
RF IN	2x N
110-240V AC	

SV RX HD DC

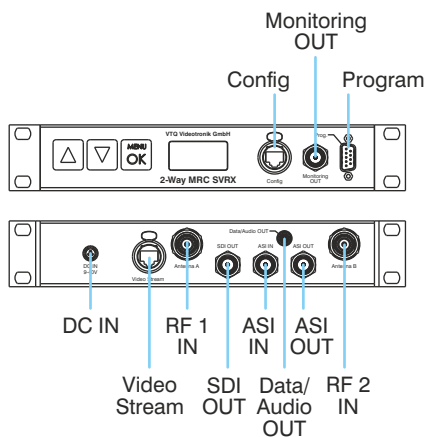


- + ASI Diversity & ASI Multidiversity possible
- + ASI OUT
- + SDI OUT (2x)
- + ASI IN
- + RS232 OUT
- + UDP-Stream
- + Konfiguration über Netzwerk // network setup
- + DC IN 9-40V

Abmessungen // Dimensions



Anschlüsse // Connectors



Technische Daten // Technical details

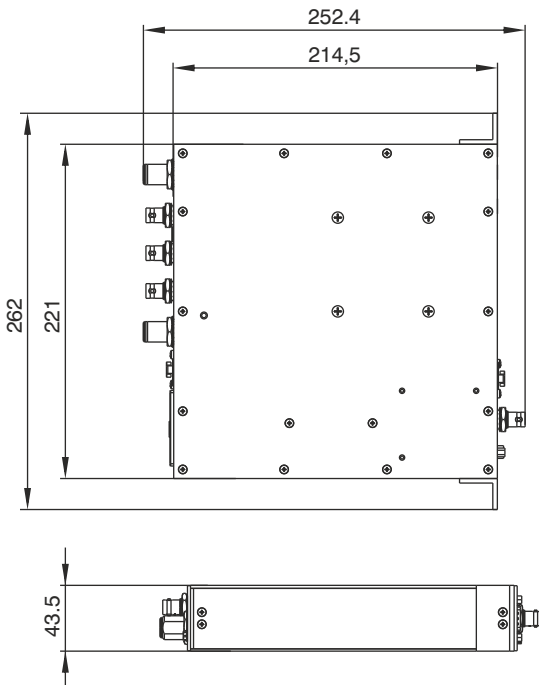
HF VIDEO	
Frequenzbereiche // Frequency ranges	1.4GHz, 2.4GHz, 5.8GHz
Diversity-Typ // Diversity type	2-Way MRC Diversity (FFT-MRC)
Modulation // Modulation	COFDM (QPSK, 16QAM), (64QAM optional)
Bandbreite // Band width	6, 7, 8MHz (1.25, 2.5MHz optional)
Verzögerung // Delay	22ms depend on mode
Kompression // Compression	H.264 (embedded audio)
Videoformate // Video format	1080i50/59,94/60 1080p23,98/24/25/29,97/30, 1080psf23,98/24/25/29,97/30 720p23,98/24/25/29,97/30/50/59,94/60, 576i50, 480i59,94/60
RS232	embedded
Entschlüsselung // Decryption	AES / 3DES
PHYSIKALISCHE EIGENSCHAFTEN // PHYSICAL CHARACTERISTIC	
Spannungsversorgung // Power supply	110-240V AC
Leistungsaufnahme // Power consumption	13W
Temperaturbereiche // Temperature ranges (andere auf Anfrage // others on request)	-10°C - +50°C / -20°C - +55°C
Betrieb/Lagerung // Operation/Storage	-10°C - +50°C / -20°C - +55°C
Abmessungen // Dimensions	252.4 x 262 x 43.5mm
Gewicht // Weight	2100g
ANSCHLÜSSE // CONNECTORS	
SDI OUT	2x BNC
ASI IN	BNC
ASI OUT	BNC
Stream	RJ45
Config.	RJ45
Prog.	9-pol. Sub-D
Data/Audio OUT	6-pol. LEMO
RF IN	2x N
9-40V DC	3-pol. LEMO

SV RX SD AC



- + ASI Diversity & ASI Multidiversity possible
- + 2-Way MRC Diversity
- + ASI OUT
- + SDI OUT
- + ASI IN
- + FBAS OUT // CVBS OUT
- + RS232 OUT
- + Konfiguration über Netzwerk // network setup

Abmessungen // Dimensions



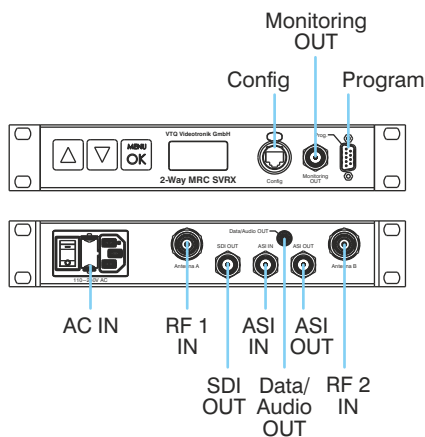
Technische Daten // Technical details

HF VIDEO	
Frequenzbereiche // Frequency ranges	1.4GHz, 2.4GHz, 5.8GHz
Diversity-Typ // Diversity type	2-Way MRC Diversity (FFT-MRC)
Modulation // Modulation	COFDM (QPSK, 16QAM), (64QAM optional)
Bandbreite // Band width	6, 7, 8MHz (1.25, 2.5MHz optional)
Verzögerung // Delay	5ms depend on mode
Kompression // Compression	H.264 (embedded audio)
Videoformate // Video format	576i50, 480i59,94/60
RS232	embedded
Entschlüsselung // Decryption	AES / 3DES

PHYSIKALISCHE EIGENSCHAFTEN // PHYSICAL CHARACTERISTIC	
Spannungsversorgung // Power supply	110-230V AC
Leistungsaufnahme // Power consumption	13W
Temperaturbereiche // Temperature ranges (andere auf Anfrage // others on request)	-35°C - +65°C / -35°C - +65°C
Betrieb/Lagerung // Operation/Storage	-35°C - +65°C / -35°C - +65°C
Abmessungen // Dimensions	252.4 x 262 x 43.5mm
Gewicht // Weight	2000g

ANSCHLÜSSE // CONNECTORS	
SDI OUT	2x BNC
Monitoring OUT (CVBS)	BNC
ASI IN	BNC
ASI OUT	BNC
Config.	RJ45
Prog.	9-pol. Sub-D
Data/Audio OUT	6-pol. LEMO
RF IN	2x N
110-240V AC	

Anschlüsse // Connectors

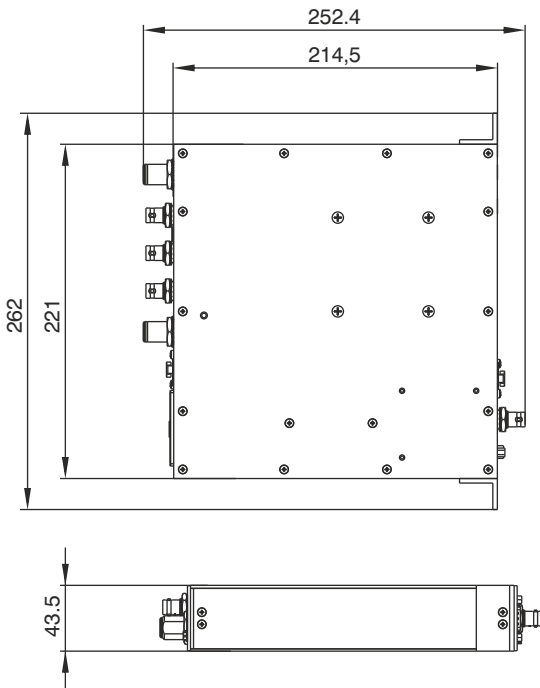


SV RX SD DC



- + ASI Diversity & ASI Multidiversity possible
- + 2-Way MRC Diversity
- + ASI OUT
- + SDI OUT
- + ASI IN
- + FBAS OUT // CVBS OUT
- + RS232 OUT
- + Konfiguration über Netzwerk // network setup

Abmessungen // Dimensions



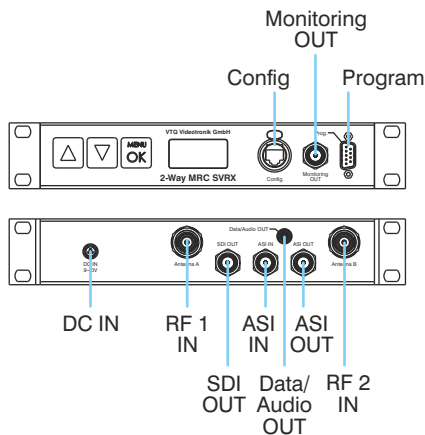
Technische Daten // Technical details

HF VIDEO	
Frequenzbereiche // Frequency ranges	1.4GHz, 2.4GHz, 5.8GHz
Diversity-Typ // Diversity type	2-Way MRC Diversity (FFT-MRC)
Modulation // Modulation	COFDM (QPSK, 16QAM), (64QAM optional)
Bandbreite // Band width	6, 7, 8MHz (1.25, 2.5MHz optional)
Verzögerung // Delay	5ms depend on mode
Kompression // Compression	H.264 (embedded audio)
Videoformate // Video format	576i50, 480i59,94/60
RS232	embedded
Entschlüsselung // Decryption	AES / 3DES

PHYSIKALISCHE EIGENSCHAFTEN // PHYSICAL CHARACTERISTIC	
Spannungsversorgung // Power supply	9 - 40V DC
Leistungsaufnahme // Power consumption	13W
Temperaturbereiche // Temperature ranges (andere auf Anfrage // others on request)	
Betrieb/Lagerung // Operation/Storage	-35°C - +65°C / -35°C - +65°C
Abmessungen // Dimensions	262 x 252.4 x 43.5mm
Gewicht // Weight	1700g

ANSCHLÜSSE // CONNECTORS	
SDI OUT	2x BNC
Monitoring OUT (CVBS)	BNC
ASI IN	BNC
ASI OUT	BNC
Config.	RJ45
Prog.	9-pol. Sub-D
Data/Audio OUT	6-pol. LEMO
RF IN	2x N
9-40V DC	3-pol. LEMO

Anschlüsse // Connectors

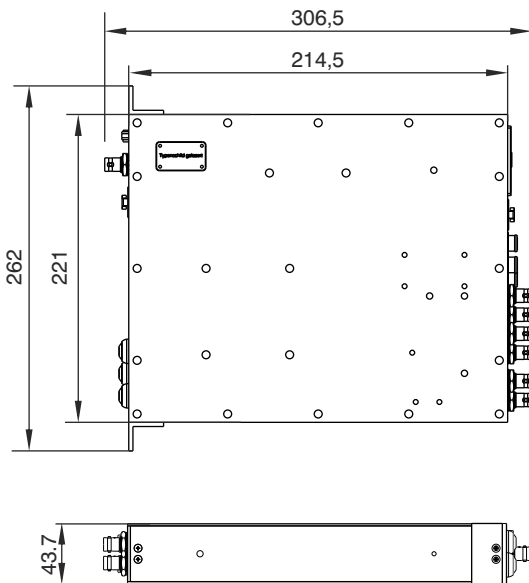




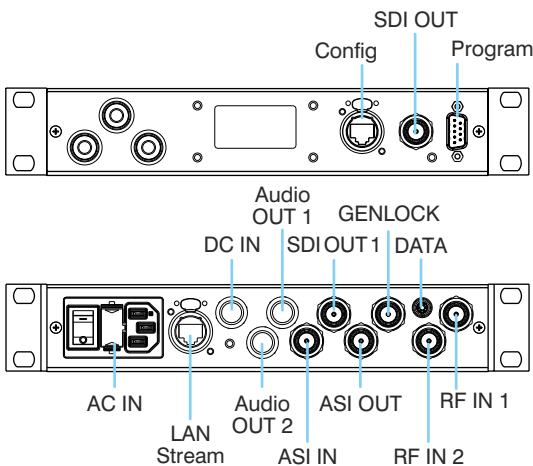
Pro RX HD

- + ASI Diversity & ASI Multidiversity possible
- + Network Roaming possible
- + 2-Way MRC Diversity
- + SDI OUT, ASI OUT, ASI IN
- + Genlock (for Broadcast // for broadcast)
- + UDP / RTP Streaming / IP COFDM
- + Konfiguration über Netzwerk // network setup

Abmessungen // Dimensions



Anschlüsse // Connectors



Technische Daten // Technical details

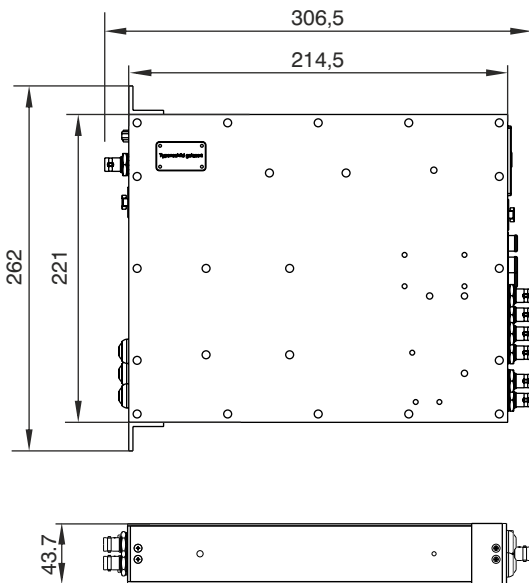
HF VIDEO	
Frequenzbereiche // Frequency ranges	167 - 867MHz
Diversity-Typ // Diversity type	2-Way MRC Diversity (FFT-MRC)
Modulation // Modulation	COFDM (QPSK, 16QAM), (64QAM optional)
Bandbreite // Band width	6, 7, 8MHz
Videoformate // Video format	1080i50/59,94/60 1080p23,98/24/25/29,97/30, 1080psf23,98/24/25/29,97/30 720p23,98/24/25/29,97/30/50/59,94/60, 576i50, 480i59,94/60
RS232	embedded
Entschlüsselung // Decryption	AES / 3DES
PHYSIKALISCHE EIGENSCHAFTEN // PHYSICAL CHARACTERISTIC	
Spannungsversorgung // Power supply	110 - 240V DC
Leistungsaufnahme // Power consumption	16.5W
Temperaturbereiche // Temperature ranges (andere auf Anfrage // others on request)	
Betrieb/Lagerung // Operation/Storage	-10°C - +50°C / -10°C - +50°C
Abmessungen // Dimensions	306.5 x 262 x 43.7mm
Gewicht // Weight	2500 g
ANSCHLÜSSE // CONNECTORS	
SDI OUT	BNC
ASI IN	BNC
ASI OUT	BNC
RF IN	2xBNC
LAN Stream	RJ45
Config.	RJ45
DATA (RS232 emb. RS485 Remote)	6-pol. LEMO
Programm	9-pol. Sub-D
Audio OUT	mini XLR
DC IN	mini XRL
Genlock	BNC
AC IN	Kaltgerätestecker // rubber connector
Frequenzbereiche von 900 - 6GHz via Downconverter möglich // Frequency ranges from 900 - 6GHz via Downconverter possible	



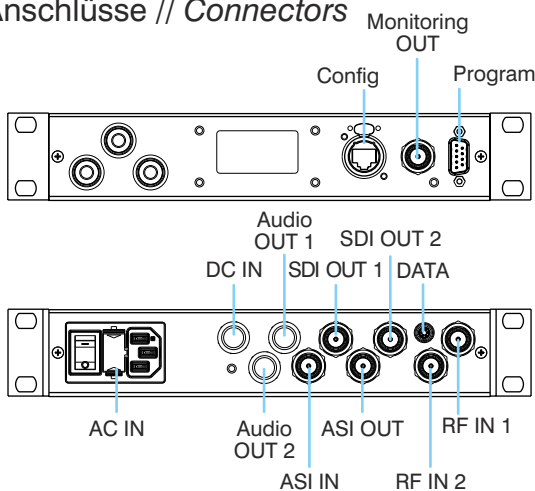
Pro RX SD

- + ASI Diversity & ASI Multidiversity possible
- + Network Roaming possible
- + 2-Way MRC Diversity
- + SDI OUT
- + ASI OUT
- + ASI IN
- + Konfiguration über Netzwerk // network setup

Abmessungen // Dimensions



Anschlüsse // Connectors



Technische Daten // Technical details

HF VIDEO	
Frequenzbereiche // Frequency ranges	167Mhz -900Mhz
Diversity-Typ // Diversity type	2-Way MRC Diversity (FFT-MRC)
Modulation // Modulation	COFDM (QPSK, 16QAM), (64QAM optional)
Bandbreite // Band width	4, 5, 6, 7, 8MHz (1.25, 2.5MHz optional)
Verzögerung // Delay	2ms depend on mode
Kompression // Compression	H.264 (embedded audio)
Videoformate // Video format	576i50, 480i59,94/60
RS232	embedded
Entschlüsselung // Decryption	AES / 3DES

PHYSIKALISCHE EIGENSCHAFTEN // PHYSICAL CHARACTERISTIC	
Spannungsversorgung // Power supply	9 - 40V DC
Leistungsaufnahme // Power consumption	13W
Temperaturbereiche // Temperature ranges (andere auf Anfrage // others on request)	
Betrieb/Lagerung // Operation/Storage	-10°C - +50°C / -35°C - +60°C
Abmessungen // Dimensions	306.5 x 262 x 43.7mm
Gewicht // Weight	540 g approximate weight

ANSCHLÜSSE // CONNECTORS	
SDI OUT	BNC
Monitoring OUT	BNC
ASI IN	BNC
ASI OUT	BNC
RF IN	2xBNC
Config.	RJ45
DATA (RS232 emb. RS485 Remote)	6-pol. LEMO
Programm	9-pol. Sub-D
Audio OUT	mini XLR
DC IN	mini XLR

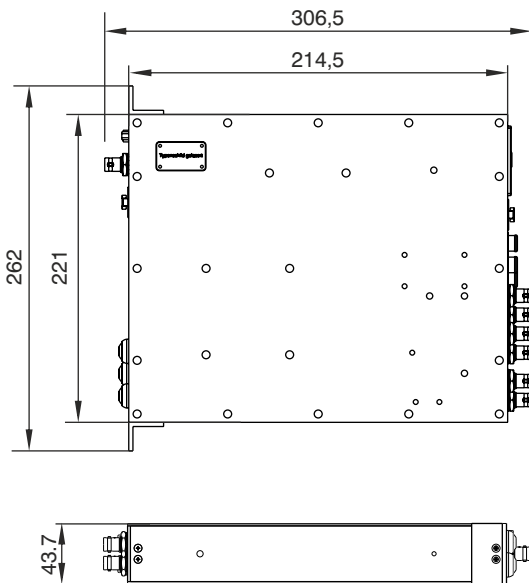
Frequenzbereiche von 900 - 6GHz via Downconverter möglich //
 Frequency ranges from 900 - 6GHz via Downconverter possible



Pro RX ASI

- + ASI Diversity & ASI Multidiversity possible
- + Network Roaming possible
- + 2-Way MRC Diversity
- + ASI OUT
- + ASI IN
- + Konfiguration über Netzwerk // network setup
- + UDP / RTP Streaming / IP COFDM

Abmessungen // Dimensions



Technische Daten // Technical details

HF	
Frequenzbereiche // Frequency ranges	167 - 900MHz
Diversity-Typ // Diversity type	2-Way MRC Diversity (FFT-MRC)
Modulation // Modulation	COFDM (QPSK, 16QAM, 64QAM)
Bandbreite // Band width	4, 5, 6, 7, 8MHz (1.25, 2.5MHz optional)
Verschlüsselung // Encryption	AES / 3DES

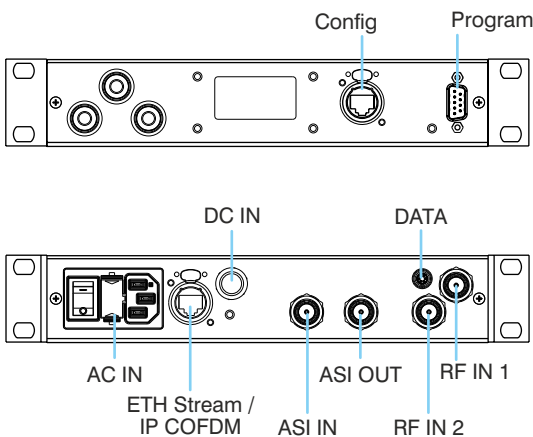
PHYSIKALISCHE EIGENSCHAFTEN // PHYSICAL CHARACTERISTIC	
Spannungsversorgung // Power supply	110-230V AC / 9-30V DC
Leistungsaufnahme // Power consumption	13W
Temperaturbereiche // Temperature ranges (andere auf Anfrage // others on request)	-35°C - +65°C / -35°C - +65°C
Betrieb/Lagerung // Operation/Storage	-35°C - +65°C / -35°C - +65°C
Abmessungen // Dimensions	306.5 x 262 x 43.7mm
Gewicht // Weight	540 g approximate weight

ANSCHLÜSSE // CONNECTORS	
ASI IN	BNC
ASI OUT	BNC
RF IN	2xBNC
ETH Stream /IP COFDM	Rj45
Config.	Rj45
Programm	9-pol. Sub-D
DC IN	mini XRL
DATA (RS232 emb. RS485 Remote)	6-pol. LEMO

Frequenzbereiche von 900 - 6GHz via Downconverter möglich //

Frequency ranges from 900 - 6GHz via Downconverter possible

Anschlüsse // Connectors

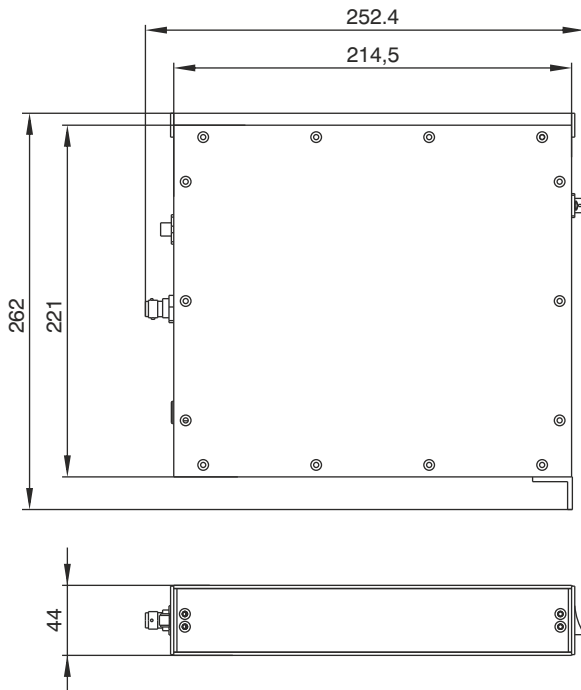




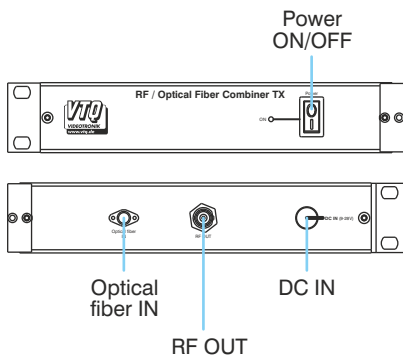
Fiber to RF

- + zum Absetzen der Antennen von Empfänger über größere Distanzen über Glasfaser // *to offset antennas from receiver over larger distances via optical fiber*
- + bis zu 20km (abhängig vom HF-Level) *up to 20km (depend on RF level)*

Abmessungen // Dimensions



Anschlüsse // Connectors



Technische Daten // Technical details

RF TX-RX Link	
Frequency range	100-2400MHz
RF Gain	>0dB
Gain Flatness	≤ ±2dB
1dB Input compression point	≥ -5dBm
VSWR	≤ 2:1
RF input signal range	-65dBm - -5dBm
Maximum input level	10dBm
Noise Figure	<30dB
Spurious signals	-70dBc
Input and output impedance	50ohm

OPTICAL AND ELECTRICAL (TX,RX)	
Laser diode operating wavelength	1.31μm
Receiver Photodiode operating wavelength	1.2-1.65μm
Optical Power	2 ±0.5mW
Optical Connectors	FC/APC
RF input and output connectors	SMA
Electrical connectors	DB9

PHYSIKALISCHE EIGENSCHAFTEN // PHYSICAL CHARACTERISTIC	
Spannungsversorgung // Power supply	9 - 40V DC
Leistungsaufnahme // Power consumption	t.b.d.
Temperaturbereiche // Temperature ranges	
Betrieb/Lagerung // Operation/Storage	-10°C - +65°C / -40°C - +85°C
Abmessungen // Dimensions	252.4 x 262 x 44mm
Gewicht // Weight	1500g

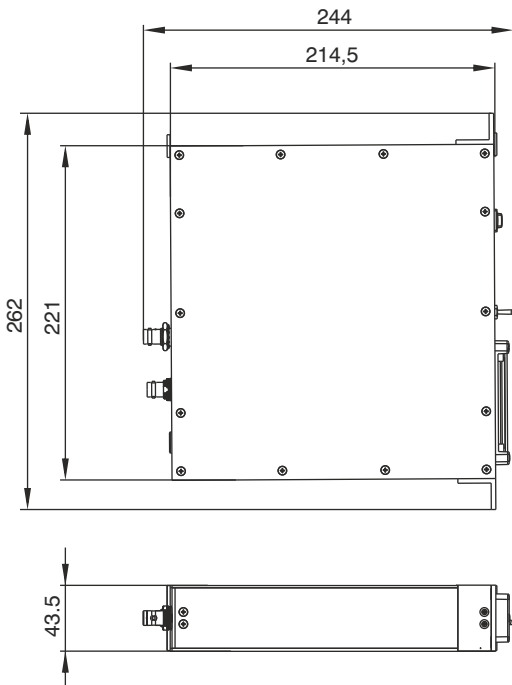
ANSCHLÜSSE // CONNECTORS	
RF IN (Video)	SMA
RF OUT (Telemetry)	TNC
Optical fiber IN (Telemetry)	t.b.d.
Optical fiber OUT (Video)	t.b.d.
Antenna (Telemetry)	TNC
DC IN	3-pol. LEMO



DVR

- + HD (1080p/720p) oder SD (PAL/NTSC)
- + H.264
- + SD-card (max. 256GB)
- + pre-trigger 10 sec.
- + motion detection
- + GPS
- + RS232

Abmessungen // Dimensions

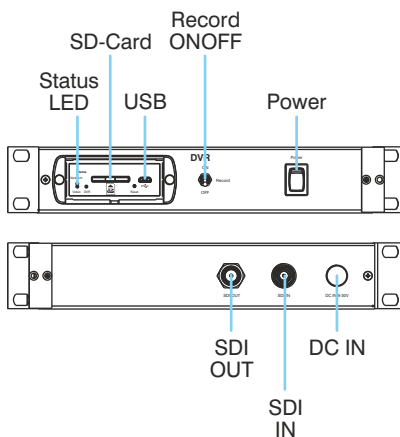


Technische Daten // Technical details

RECORDING	
Videoeingänge // Video inputs	4x SD (PAL/NTSC) oder // or 1x HD
Videokompression // Video compression	H.264
Speicher // Storage	SD-Card (max. 256GB)
Aufnahme-Auflösung // Recording resolution	1080p30, 720p30, 720p60
Aufnahmezeit // Recording time	SD: 8 Tage / days (256GB) HD: 3 Tage / days (256GB)
Audio // Audio	2 channels
Schnittstellen // Interfaces	RS232
Funktionen // Features	fast boot time (3-5 seconds) 2x external trigger 2x internal timers internal zoned motion detection pre-trigger up to 10 secondes record on GPS movement wake up and record on mechanical shake

PHYSIKALISCHE EIGENSCHAFTEN // PHYSICAL CHARACTERISTIC	
Spannungsversorgung // Power supply	6 - 24V DC
Leistungsaufnahme // Power consumption	t.b.d.
Temperaturbereiche // Temperature ranges (andere auf Anfrage // others on request)	
Betrieb/Lagerung // Operation/Storage	-35°C - +65°C / -35°C - +65°C
Abmessungen // Dimensions	244 x 262 x 43.5mm
Gewicht // Weight	1500g

Anschlüsse // Connectors



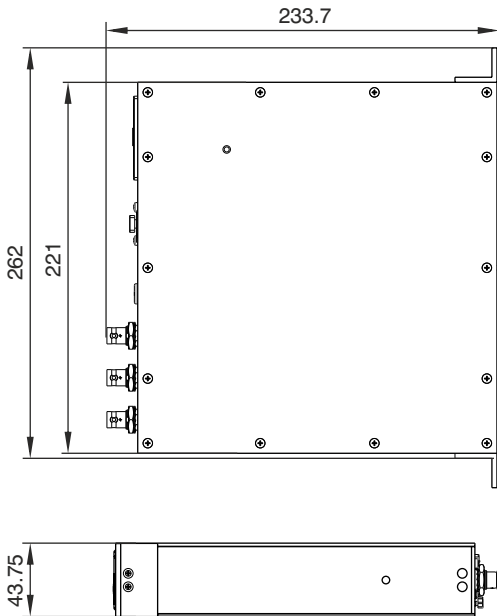
ANSCHLÜSSE // CONNECTORS	
SDI IN	BNC
SDI OUT	BNC
USB	Micro-USB
9-40V DC	3-pol. LEMO

Network Encoder



- + **TCPC & MCPC possible**
- + SDI / HDMI
- + alle SD & alle HD Formate // *all SD and all HD formats*
- + UDP / RTP unicast / multicast streaming
- + Fernsteuerbar via Netzwerk und RS485 // *setup able via network and RS485*
- + 110 - 230VAC / 9 - 40 VDC

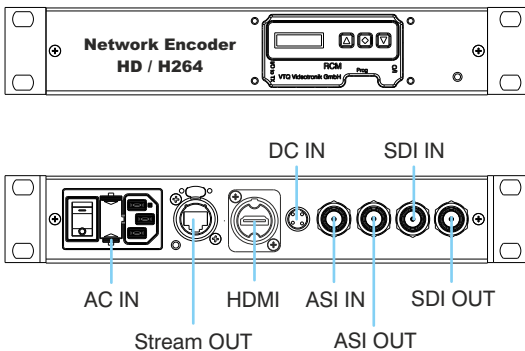
Abmessungen // Dimensions

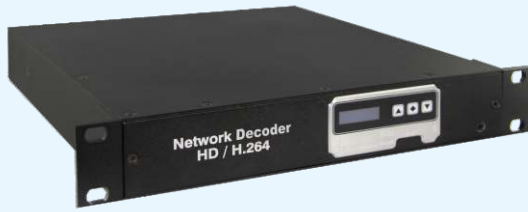


Technische Daten // Technical details

VIDEO	
Verzögerung // Delay	22ms depend on mode
Kompression // Compression	H.264 (embedded audio)
Videoformate // Video format	1080i50/59,94/60
	1080p23,98/24/25/29,97/30, 1080psf23,98/24/25/29,97/30
	720p23,98/24/25/29,97/30/50/59,94/60, 576i50, 480i59,94/60
Streaming	UDP / RTP
ETHERNET EIGENSCHAFTEN // ETHERNET CHARACTERISTIC	
Eingang / Ausgang // Input / Output	10 / 100BaseT Ethernet
	IEEE 802.3/802.3u Full Duplex Mode
PHYSIKALISCHE EIGENSCHAFTEN // PHYSICAL CHARACTERISTIC	
Spannungsversorgung // Power supply	110 - 230VAC / 9 - 40V DC
Leistungsaufnahme // Power consumption	8W
Temperaturbereiche // Temperature ranges (andere auf Anfrage // others on request)	
Betrieb/Lagerung // Operation/Storage	-10°C - +50°C / -20°C - +55°C
Abmessungen // Dimensions	233,7 x 262 x 43,75mm
Gewicht // Weight	round about 1700g
ANSCHLÜSSE // CONNECTORS	
Stream OUT	RJ45
HDMI	HDMI
DC IN	LEMO
ASI IN	BNC
ASI OUT	BNC
SDI IN	BNC
SDI OUT	BNC
110-240V AC	

Anschlüsse // Connectors

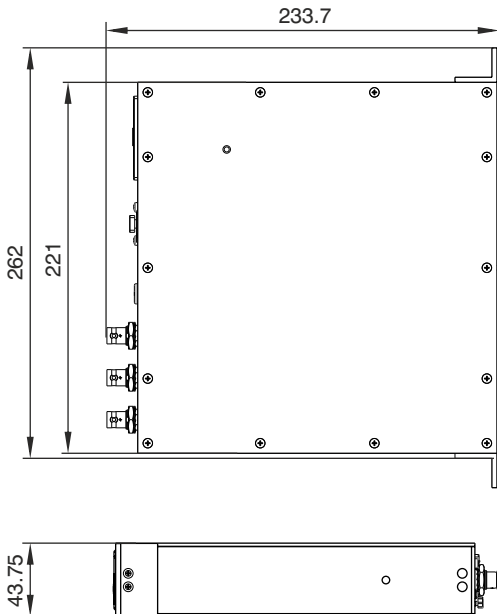




Network Decoder

- + **TCPC & MCPC possible**
- + SDI / HDMI
- + alle SD & alle HD Formate // *all SD and all HD formats*
- + UDP / RTP unicast / multicast streaming
- + Fernsteuerbar via Netzwerk und RS485 // *setup able via network and RS485*
- + 110 - 230VAC / 9 - 40 VDC
- + Entschlüsselung der SD & HD Sender // *decryption of SD & HD transcseiver*

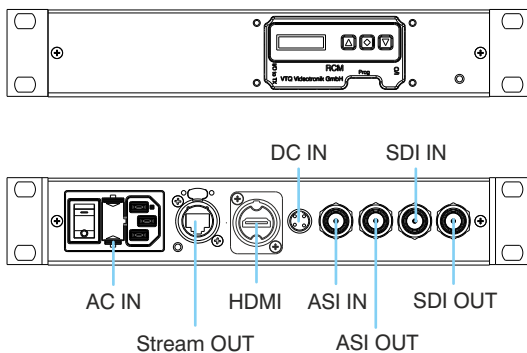
Abmessungen // Dimensions



Technische Daten // Technical details

VIDEO	
Verzögerung // Delay	22ms depend on mode
Kompression // Compression	H.264 (embedded audio)
Videoformate // Video format	1080i50/59,94/60
	1080p23,98/24/25/29,97/30, 1080psf23,98/24/25/29,97/30
	720p23,98/24/25/29,97/30/50/59,94/60, 576i50, 480i59,94/60
Streaming	UDP / RTP
Verschlüsselung	AES / 3DES
ETHERNET EIGENSCHAFTEN // ETHERNET CHARACTERISTIC	
Eingang / Ausgang // Input / Output	10 / 100BaseT Ethernet
	IEEE 802.3/802.3u Full Duplex Mode
PHYSIKALISCHE EIGENSCHAFTEN // PHYSICAL CHARACTERISTIC	
Spannungsversorgung // Power supply	110 - 230VAC / 9 - 40V DC
Leistungsaufnahme // Power consumption	8W
Temperaturbereiche // Temperature ranges (andere auf Anfrage // others on request)	
Betrieb/Lagerung // Operation/Storage	-10°C - +50°C / -20°C - +55°C
Abmessungen // Dimensions	233,7 x 262 x 43,75mm
Gewicht // Weight	round about 1700g
ANSCHLÜSSE // CONNECTORS	
Stream OUT	RJ45
HDMI	HDMI
DC IN	LEMO
ASI IN	BNC
ASI OUT	BNC
SDI IN	BNC
SDI OUT	BNC
110-240V AC	

Anschlüsse // Connectors

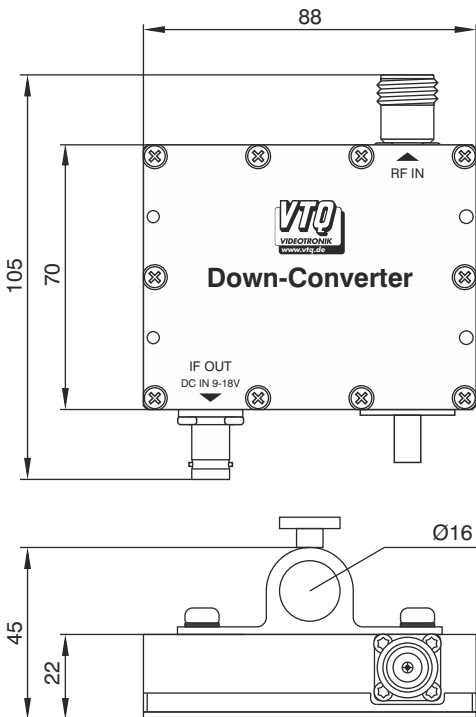




Down-Converter

- + Eingangsfrequenzen von 1000 bis 6000MHz
Input frequencies from 1000 to 6000MHz
- + hohe Bandbreite // *high band width*
- + niedriges Phasenrauschen // *low phase noise*
- + hohe Frequenzstabilität // *high frequency stability*
- + DC-Versorgung über die Ausgangsbuchse // *remote power supply via output connector*
- + 16mm Stativaufnahme // *16mm spigot mount*

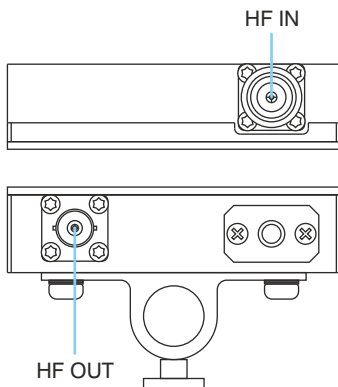
Abmessungen // Dimensions



Technische Daten // Technical details

HF	
Frequenzbereiche (RF) // <i>Frequency ranges (RF)</i>	1000-1500MHz
	1500-2000MHz
	2000-2700MHz
	3000-3700MHz
	4400-4800MHz
	4800-5500MHz
	5500-6000MHz
PHYSIKALISCHE EIGENSCHAFTEN // <i>PHYSICAL CHARACTERISTIC</i>	
Spannungsversorgung // <i>Power supply</i>	9-18V DC
Spannungsaufnahme // <i>Power consumption</i>	max. 300 mA
Temperaturbereiche // <i>Temperature ranges</i>	
Betrieb/Lagerung // <i>Operation/Storage</i>	+55°C
Abmessungen // <i>Dimensions</i>	88 x 70 x 22mm
Gewicht // <i>Weight</i>	typ. 240 g
ANSCHLÜSSE // <i>CONNECTORS</i>	
Eingang / Impedanz // <i>Input connector / impedance</i>	N-female, 50 ohms
Ausgang / Impedanz // <i>Output connector / impedance</i>	BNC-female, 50 ohms
MONTAGE // <i>MOUNT</i>	
Stativaufnahme // <i>Spigot mount</i>	16mm
Gewinde // <i>Thread</i>	1/4" (20UNC)

Anschlüsse // Connectors





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