



Digital Video Gateway Datasheet

DVG is a multitool software platform that delivers reliable video, over any network, connecting any service, and any cloud.

The DVG offers the four essential ingredients for broadcasting with confidence over IP networks.

RELIABILITY

Make sure your broadcast is always connected, on air, and reliable by adapting the bit rate in realtime, adding backup links and disaster recovery to ensure no single point of failure video delivery network.

CONFIDENCE

Monitor the streams and network behavior everywhere - from any device with stream health analysis (QoE), network statistics (QoS), and visual video quality assurance.

SIMPLICITY

Save time and reduce the number of truck rolls with remote configuration, analysis, and statistics by connecting in-band to any device in any site.

EFFICIENCY

All the tools you need to broadcast with confidence in one compact solution

SOFTWARE, APPLIANCE, or BOTH

The DVG can run on any hardware platform in a Docker container, as a virtual machine, or a downloadable ISO. Also, the DVG can be pre-loaded on any VideoFlow's DVX, DVA, and DVS appliance.

Either you need 1 Mb/s or 1 Gb/s, VideoFlow three lines of appliances vary by bit rate capacity, the number of connections, and the number of streams.

TECHNICAL SPECIFICATIONS

Software
Container
docker
Virtual Machine
ESXi, Virtual Box, VMWare, KVM
ISO
Software Licenses
Locked to a hardware platform
Locked to a dongle
Floating
Capacity*
Max bit rate: 2,400 Mb/s (2.4 Gb/s)
Max number of streams: 200
Max number of VPN tunnels: 200
Max number of Stream Gates: 800
Max bit rate per stream: 200 Mb/s
Video
Interface Types*
Ethernet
ASI IN/OUT (DekTec)
SDI/HDMI IN (Blackmagic DeckLink)
Encoding Formats
MPEG2, H.264, H.265/HEVC
Resolutions
SD, HD, 4K, 8K
Encapsulations
TS over IP
MPEG over IP
188/204 Bytes per MPEG packet
1-7 MPEG packets per IP packet
CBR/VBR
Transport Protocols
SPTS/MPTS
Multicast/Unicast
UDP, RTP/UDP
RTSP, RTMP, HLS, DASH, (push or pull)
Video Quality Protection
Reliable Delivery Protocols
VideoFlow's Digital Video Protection (DVP)
RIST Simple/Main profiles (TR-06-02)
ZiXi Feeder/Receiver (client)
SRT Caller/Listener
SMPTE 2022-1/2 (transmit/receive)

Reliable Delivery Protocol Conversion
Jitter Elimination
Configurable buffer (default: 500 msec)
Min configurable delay: 10 msec
Max configurable delay: 10 min
Transit delay (stream switching): 5 msec
Lock to PCR mode (CBR)
Lock to packet rate mode (VBR/CBR)
Lock to RTP timestamps (VBR/CBR)
Capped CBR delivery
Lost Packets Recovery
Automatic Repeat Request (ARQ)
SMPTE 2022 -1/2
Hybrid ARQ/FEC
Advanced
Null packet deletion/reconstruction (NPD)
Service nullification
ARQ Prioritized Protection Flow (PPF)
Out-of-band quality protection
Reliability
Bit rate adaptation
Controlled Adaptive Rate (CAR)
Multi-Profile Distribution (MPD)
External multi-profile
Integrated multi-profile
MPTS Dynamic Rate (MDR)
Redundancy/Diversity
Stream redundancy
Connection/link redundancy
SMPTE 2022-7
Input failover
Output failover
High Availability
1:1 Device redundancy
Disaster recovery
Stream Activation Trigger
Dynamic Loadshare
Service Priority Delivery (SPD)
Multi-ISP connections
Multi-DHCP clients
Multiple Default Gateways

* Note: Hardware platform dependent

Connectivity
Architecture
Point-to-point
Point-to-multipoint
Multipoint-to-point
Multipoint-to-multipoint (video over IP switching)
Bi-directional
Tunnel/Virtual Private Network
Generic Routing Encapsulation (GRE)
IPSec
UDP VPN (UDP optimized)
RIST TR-06-02 secure tunnel
NAT Traversal
Unicast
UDP VPN
EasyLink
Address-restricted cone NAT
Port-restricted cone NAT
Symmetric NAT
IP Header Conversion / Remapping
DST/SRC IP address remapping
UDP DST port number remapping
Network Operations
VLAN Tagging
Virtual IP address (per interface)
DHCP clients
Default Gateways
Static route
Port forwarding
IGMP Listener
DNS client
NTP client
Security
Cybersecurity EBU R-143 compatible
Integrated Firewall
Encryption
AES128 encrypted VPN Tunnel
AES256 encrypted VPN Tunnel
DTLS
IPSec
HTTPS SSL
Endpoint authentication
Identity-based protection (Username/Password)
Operational Efficiency
Remote site configuration and management
In-band configuration and management
Remote site (peer) statistics

Confidence monitoring
Analysis and Statistics in realtime
PID, CC, PMT, PAT information
PCR bit rate information
ETR290 Stream Monitor (QoE) priority 1, 2, 3
Network Statistics (QoS)
Number of lost packets
Number of recovered packets
Number of unrecovered packets
Number of sync losses/disconnects
Input TS bit rate
Input TS Packet rate
Input TS packet loss ratio
Graphical Network Statistics
Live Statistics
Integrated FFmpeg Encoder/Transcoder
Encoding Format Conversions
MPEG2 ⇄ H.264, H.264 ⇄ MPEG2
MPEG2 ⇄ H.265, H.265 ⇄ MPEG2
H.264 ⇄ H.265, H.265 ⇄ H.264
Other Conversions
Video resolution
Frame rate
GOP structure
Audio format
Audio sample rate
File layout
Publisher (HLS, RTMP)
HTTP Media Server
Integrated Network Test Tools
Live bit rate monitoring
Live packet loss ratio monitoring
Speed test
Traffic capture (network sniffer)
Stream detection
Ping
Demux
TS Service Demux per stream
TS PID Demux per stream
Control and Monitoring
Email alerts
Alarms, Syslog, Event Logger
Network Configuration Protocol (NETCONF)
REST
HTTP/HTTPS, Telnet/SSH
SNMP (v1, v2)
CLI

ORDERING INFORMATION

DVG Software

VFS10201	DVG Software
VFS88010	DVG Stream Gates (SGs), Min 1 SG, Max 10 SGs
VFS88100	DVG Stream Gates (SGs), Min 11 SG, Max 100 SGs
VFS88200	DVG Stream Gates (SGs), Min 101 SG, Max 200 SGs
VFS88800	DVG Stream Gates (SGs), Min 201 SG, Max 800 SGs
VFS89001	DVG pool license
VFS91002	DVP/DVG hot backup license

DVG License Server

VFL60001	License server
VFL80100	A pool of 100 DVG Stream Gates
VFL80300	A pool of 300 DVG Stream Gates
VFL80500	A pool of 500 DVG Stream Gates
VFL80001	DVG Stream Gates pool oversubscription usage per SG per month