

ARRIS CAP-1000 CherryPicker

IP-CENTRIC PLATFORM FOR GROOMING, SPLICING, AND REMULTIPLEXING



The ARRIS CherryPicker Application Platform (CAP-1000) is an advanced, IP-centric, high-density multiplexer designed to give video service providers unparalleled efficiency and flexibility in managing and localizing video streams with full redundancy. The CAP-1000 is a highly-programmable device that can support evolving technical standards and emerging application needs through simple software upgrades, allowing customers to realize continuous returns on their initial capital investment.

The CAP-1000 performs three primary functions: grooming, rate shaping, and digital program insertion (DPI), for both MPEG-2 and MPEG-4 streams. Additional features include program and multiplex redundancy, time stamping (dejitter), Program and System Information Protocol (PSIP) creation, slate insertion, SCTE 18 Emergency Alert Signaling (EAS) switching, Commercial Advertisement Loudness Mitigation (CALM) audio leveling, Basic Interoperable Scrambling System (BISS) encryption/decryption, and advanced MUX 3.0 Enhanced Binary Interchange Format (EBIF) processing and filtering. Based on the Emmy® award-winning CherryPicker technology and algorithms, the CAP-1000 operates with carrier-class reliability and features massive processing power to handle up to 1.44 Gbps of aggregate, video stream throughput.

The advanced hardware design includes a passive chassis with field-replaceable (FRU) input/output (I/O) and processing cards, dual hot-swappable power supplies (AC, DC, mixed), dual hot-swappable speed- varying fan trays, optional ASI I/O cards (up to eight ports), and 1:1 and N:1 chassis redundancy options, all in a space- and power-saving 1RU enclosure.

SPECIFICATIONS

EXTENSIVE INTEROPERABILITY
MPEG-2 and MPEG-4
MPTS and SPTS
Ethernet I/O (standard) and ASI (optional)
Unicast and Multicast ARP, ICMP, IGMPv3 over UDP/IP/RTP
QoS and VLAN tagging IEEE 802.1p, 802.1q
SEAMLESS PROGRAM SPLICING AND SWITCHING
High-reliability SD and HD Digital Program Insertion
SCTE 35 and 30 standards
COMPREHENSIVE RE-MULTIPLEXING
Synchronization of video, audio, and data
PID filtering and remapping
PCR de-jittering and restamping
PAT and PMT creation and management
Data PID insertion
Advanced dynamic SI and PSI processing
ADVANCED STREAM PROCESSING
CBR to VBR conversion
VBR to CBR conversion (rate-clamped VBR)
Bitrate conversion CBR to CBR, VBR to VBR
SD/HD rate shaping
Grooming , regrooming, time-based switching

FLEXIBLE MANAGEMENT /CONTROL AND MONITORING	
Two RJ-45 10/100 Mbps management ports Bonded pair with single gateway and IP	
Management access through all GbE ports (and ability to restrict management functions on all ports for security)	
4PAC serial console maintenance port	
Full Java-based GUI	
RADIUS	
Extensive SNMP traps and status	
XML configuration files for both input and output	
Local and remote logging capability	
VIDEO	
MPEG-2 Main Profile	
MPEG-4/AVC Main and High Profile, up to Level 4 MPEG-2, MP@ ML, MP@HL	
HD	720p up to 1920 pixels at 60 fps and 50 fps
HD	1080i up to 1920 pixels at 30 fps and 25 fps
NTSC	480i x 704/544/528/480/352, 29.97 fps
PAL	576i x 704/720/544/480/352, 25 fps
AUDIO	
Dolby AC-3	
MPEG-2 Layer I and II	
AAC and AAC-HE	
INPUT/OUTPUT PORTS	
Ethernet Ports 1-4	XFP 10 G ports. Can accept optical SFP 1 GbE transceivers. Note: Ports 1-4 do not support SFP 1 GbE copper transceivers.
Ethernet Ports 5-8	SFP 1 GbE ports (SM/MM optical SFP and copper SFP)
Ethernet Ports 9-10	RJ-45 1 GbE
All Ethernet ports active	All 10 Ethernet ports listed are available and active
DVB-ASI	Optional. Eight port maximum. Two cards, each card has four ASI ports. Each port can be configured as input or output.
ELECTRICAL/MECHANICAL	
Dimensions (H x W x L) and rack unit (RU)	1.75 x 17.5 x 23.5 in. (4.45 x 44.45 x 59.69 cm), 1RU 1.75-in (4.45 cm); mounts in 19-in (48.26 cm) rack (excluding rack ears and connectors)
Weight	31 lbs
Input Voltage	100 to 240 VAC
Power Consumption	3.5 VAC, 120 V, 60 Hz; 275W Avg.
Frequency	50 to 60 Hz
Operating Temperature	0 °C to +50 °C
Cooling	Side-to-side
Humidity	5% to 95%, non-condensing
Certification	UL, CB, CE, VCCI, TUV, FCC, CISPR 22 Class A, ROHS
NEBS	Level 1-ready

DEPLOYMENT SERVICES

PART NUMBER	SERVICES DESCRIPTION
476666-087-00	CherryPicker CAP-1000 Onsite Configuration
476666-153-00	CherryPicker CAP-1000 Remote Configuration