





INTERNATIONAL PROFESSIONAL USER PRICE LIST

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ORBAN FM PROCESSING


Model	Description	Pro. User Net Price (USD)
8500 	<p>OPTIMOD-FM 8500 DIGITAL</p> <p>OPTIMOD-FM 8500 Digital Processor</p> <p>The 8500 builds on the proven, competitive sound of the 8400 version 3 while adding features that make it the ideal choice for FM stations simultaneously transmitting iBiquity's HD Radio®, Eureka 147, or a netcast (where it works particularly well with Orban's aacPlus® Opticodec-PC®). With double the DSP power of the 8400, the DSP not only supports the new features but also provides comfortable headroom for future DSP improvements. Features include revolutionary design, window-gated dual-band AGC, stereo enhancement, parametric EQ, large color LCD, advanced processing controls and an Orban-exclusive baseband processor providing all the advantages of composite clipping without the usual degradation of stereo or RDS/RBDS coverage. All processing features are included—no extra-cost processing options are necessary. Featuring versatile five-band and two-band processing for both analog transmission and digital radio, the 8500 provides the industry's most consistent sound, track-to-track and source-to-source. Digital I/O included (2). Sample rates automatically selected for AES/EBU input and digital sync input: 32, 44.1 and 48 kHz. Inputs: AES/EBU, digital sync and electronically balanced stereo analog (XLR). Two SCA inputs (BNC). Output sample rates selected in software: 32, 44.1, 48, 88.1 and 96 kHz. Outputs: AES/EBU (2), electronically balanced and floating stereo analog (XLR). Two stereo encoder composite outputs (BNC). Remote control interface (DB25), two RS-232 interfaces (DB9). Pre-emphasis 50µs or 75µs. 3U. 41 lb/18.6 kg. (HD Radio™ is a registered trademark of iBiquity, Inc.).</p>	<p>\$13,900</p>
8400/SIG 	<p>OPTIMOD-FM 8400 SIGNATURE SERIES DIGITAL</p> <p>OPTIMOD-FM 8400 Signature Series Digital Processor</p> <p>The 8400 signature series celebrates the next-generation industry-standard digital FM processor, plus a restyled front panel featuring Bob Orban's signature. Orban's most advanced FM processor with five times the digital processing power of its predecessor—cleaner, brighter and louder than previously possible. Features include revolutionary design, window-gated dual-band AGC, stereo enhancement, parametric EQ, large color LCD, advanced processing controls and an Orban-exclusive baseband processor providing all the advantages of composite clipping without the usual degradation of stereo or RDS/RBDS coverage. All processing features are included—no extra-cost processing options are necessary. Includes both multi-band and two-band processing, two-band purist and protection structures. Digital I/O included. Sample rates automatically selected for AES/EBU input and digital sync input: 32, 44.1 and 48 kHz. Inputs: AES/EBU, digital sync and electronically balanced stereo analog (XLR). Two SCA inputs (BNC). Output sample rates selected in software: 32, 44.1 and 48 kHz. Outputs: AES/EBU, electronically balanced and floating stereo analog (XLR). Two stereo encoder composite outputs (BNC). Remote control interface (DB25), two RS-232 interfaces (DB9), two PCMCIA slots (front and rear panel). Pre-emphasis 50µs or 75µs. 3U. 36 lb/16.3 kg.</p>	<p>\$10,900</p>
8400/SIG/HD/FM	<p>OPTIMOD FM 8400HD Signature Series Digital Processor</p> <p>Identical to the 8400, except provides an additional AES/EBU digital output carrying a signal whose processing has been optimized for the iBiquity HD digital channel. 32, 44.1 and 48 kHz output sample rates are software-selectable. An associated AES/EBU sync input allows the HD FM output sample rate to be synchronized to the sample rate applied to the sync input. Thus, 8400HD FM provides separate, optimized processing for analog and digital channels, whether HD FM, webcasts, or Eureka 147. Pre-emphasis 50µs or 75µs. 3U. 41 lb/18.6 kg. (HD Radio™ is a registered trademark of iBiquity, Inc.).</p>	<p>\$12,550</p>
8400UPG/HD/FM	<p>Module to Upgrade Existing 8400</p> <p>Upgrade existing 8400 to 8400HD FM. NOTE: The serial number of 8400 is required when ordering the upgrade. If the serial number is below 204225-006, the 8400 will require a replacement DSP board. Please contact Orban Customer Service when ordering.</p>	<p>\$1,650</p>

ORBAN FM PROCESSING (CONT.)

Model	Description	Pro. User Net Price (USD)
8400/PD	<p><u>OPTIMOD 8400/PD</u> Identical to 8400, except with blank front panel. Controllable via a computer running Windows® 98SE, 2000, or XP (Windows NT not supported) through a direct RS-232 serial connection, an external RS-232 modem connection, or Ethernet (via supplied Ethernet PC card to be plugged into the 8400/PD's rear panel PC card slot.) Pre-emphasis 50µs or 75µs. 3U. 36lb/16.3 kg.</p>	\$9,990
8300	<p><u>OPTIMOD-FM 8300 DIGITAL</u> <u>OPTIMOD-FM 8300 Digital Processor</u> A mid-priced FM processor with many top-of-the-line Optimod 8400-features, including window-gated dual-band AGC, stereo enhancement, parametric EQ, "intelligent" look-ahead distortion control, and an ergonomic front panel with simultaneous visibility of processing adjustments and G/R meters. Includes optimum-latency multi-band and two-band processing, plus ultra-low latency (5 ms) multiband processing. Pre-emphasis 50µs or 75µs. Digital I/O included. Inputs: AES/EBU and electronically balanced stereo analog (XLR). Sample rates automatically selected for AES/EBU input: 32, 44.1 48, 88.1, and 96 kHz. Two SCA inputs (BNC). Output sample rates selected in software: 32, 44.1, 48, 88.1, and 96 kHz. Outputs: AES/EBU, electronically balanced and floating stereo analog (XLR). Two stereo encoder composite outputs (BNC). Remote control interface (DB25), RS-232 interface (DB9), 10 Mb/sec Ethernet interface (RJ45). Included PC Remote software runs on Windows® 2000 and XP. 2U. 19 lbs/8.7kg.</p>	\$7,595
5300	<p><u>OPTIMOD-FM 5300 DIGITAL</u> <u>OPTIMOD-FM 5300 Digital Audio Processor</u> The Optimod-FM 5300 puts coveted five-band and two-band Optimod processing into a single rack unit package and brings it to you at the most affordable price ever. The 5300 features three processing structures: Optimum Five-Band (or "Multiband"; 15 ms delay) for a consistent, "processed" sound, free from undesirable side effects, Ultra-Low-Latency Five-Band (5 ms delay) for environments where talent monitors live off-air and they object to the delay of Optimum Five-Band, and Two-Band (19 or 23 ms delay) for a transparent sound that preserves the frequency balance of the original program material. Other top-of-the-line features include: window-gated dual-band AGC, stereo enhancement, parametric EQ, "intelligent" look-ahead distortion control, and an ergonomic front panel with simultaneous visibility of processing adjustments and G/R meters. Pre-emphasis 50µs or 75µs. Digital I/O included. Inputs: AES/EBU and electronically balanced stereo analog (XLR). Sample rates automatically selected for AES/EBU input: 32, 44.1 48, 88.1, and 96 kHz. Two SCA inputs (BNC). Output sample rates selected in software: 32, 44.1, 48, 88.1, and 96 kHz. Outputs: AES/EBU, electronically balanced and floating stereo analog (XLR). Two stereo encoder composite outputs (BNC). Remote control interface (DB25), RS-232 interface (DB9), 10 Mb/sec Ethernet interface (RJ45). Included PC Remote software runs on Windows® 2000 and XP. 1U. 19 lbs/8.7kg.</p>	\$6,490



ORBAN FM PROCESSING (CONT.)

Model	Description	Pro. User Net Price (USD)
2300 	<p>OPTIMOD-FM 2300 DIGITAL</p> <p>OPTIMOD-FM 2300 Digital Audio Processor</p> <p>Complete audio processing for FM stations with high aspirations and modest budgets. Includes window-gated dual-band AGC, stereo enhancement, parametric EQ, digital stereo encoder with patented "Half-Cosine Interpolation" composite limiter, and an ergonomic front panel with simultaneous visibility of processing adjustments and G/R meters. Includes protection, two-band purist and two-band normal processing. Pre-emphasis 50µs or 75µs. Digital I/O included. Inputs: AES/EBU and electronically balanced stereo analog (XLR). Sample rates automatically selected for AES/EBU input: 32, 44.1, 48, 88.1, and 96 kHz. Two SCA inputs (BNC). Output sample rates selected in software: 32, 44.1, 48, 88.1, and 96 kHz. Outputs: AES/EBU, electronically balanced and floating stereo analog (XLR). Two stereo encoder composite outputs (BNC). Remote control interface (DB25), RS-232 interface (DB9), 10 Mb/sec Ethernet interface (RJ45). Included PC Remote software runs on Windows® 2000 and XP. 1U. 19 lbs/8.7kg.</p>	\$4,950
	<p>OPTIMOD-FM 2200 DIGITAL</p> <p>OPTIMOD-FM 2200 Digital Audio Processor</p> <p>Complete audio processing for FM stations with high aspirations and modest budgets. Full digital Protection and Two-Band audio processing, full digital control. Equipped with electronically balanced analog left/right inputs (XLR), electronically balanced and floating analog left/right outputs (XLR), two independent stereo encoder composite outputs (BNC), and remote control interface (DB25). Switchable 50µs or 75µs. 1U. 17 lb/7.7 kg.</p>	\$3,990
2200D	<p>OPTIMOD-FM 2200D Digital Audio Processor</p> <p>Includes 2200 features as above. Adds AES/EBU stereo digital inputs, and outputs (XLR). Input sample rate: 25-55kHz, automatically selected. 20-bit resolution. Output sample rates (software-selectable): 32, 44.1 or 48kHz. 18-bit resolution. Software controllable for flat, pre-emphasized to the selected processing pre-emphasis, J.17 pre-emphasized, or combined.</p>	\$4,650
8218	<p>8218 FM Stereo Digital Encoder / Generator with Limiter</p> <p>Perfectly complements any digital Optimod-FM in an all-digital transmission system. All-digital encoding accepts either analog or AES/EBU digital inputs. Built-in patented peak overshoot limiter controls peak overshoots caused by data compression or phase non-linearities in the transmission system between studio and transmitter. Allows automatic or remote-controlled switching of pre-emphasis and/or J.17 (NICAM) de-emphasis. Equipped with electronically balanced inputs for analog (XLR), transformer-balanced input for AES/EBU digital (XLR), subcarrier input (BNC), two floating stereo encoder composite outputs (BNC), and remote interface (DB25). Switchable 50µs or 75µs. 1 U. 13 lb/5.9 kg.</p>	\$2,475

ORBAN AM PROCESSING

Model	Description	Pro. User Net Price (USD)
	OPTIMOD-AM 9200 DIGITAL	
	OPTIMOD-AM 9200 Digital Audio Processor	
9200	Fully digital audio processing and digital control. Ships with version 3.0 software, with presets to support all LW, MW and HF (shortwave) applications. Contains AGC (Automatic Gain Control), receiver equalizer, five-band limiter and distortion-canceling clipper, and transmitter equalizer. Bandwidths from 4.5kHz to 9.5kHz (NRSC) standard, software selectable and remote-controllable, making unit ideal for processing the analog channel in the iBiquity HD AM system. Mono only. Electronically balanced analog input (XLR), two electronically balanced analog outputs (XLR). Remote control interface (DB25), RS-232 interface (DB9). Supplied with MRF023 AM monitor roll-off filter. Includes software for Microsoft Windows® 2000 or later that remote-controls the 9200, either directly (through a null modem cable), through a 9600 baud or faster modem, or via Ethernet using a low-cost third-party serial device server. 2U. 19 lb/8.6 kg.	\$4,350
	OPTIMOD-AM 9200D Digital Audio Processor	
9200D	Includes 9200 features as above plus AES/EBU stereo digital inputs and outputs (XLR). Input sample rate automatically selected: 32, 44.1 or 48kHz. 20-bit resolution. Output sample rates, software-selectable: 32, 44.1 or 48kHz. 20-bit resolution.	\$4,750
	OPTIMOD-HF 9200 DIGITAL	
	OPTIMOD-HF 9200 Digital Audio Processor	
9200HF	The latest version of 9200 software includes presets designed for the demanding requirements of high-frequency/shortwave broadcasting. Patterned after the highly regarded OPTIMOD-HF 9105A, the 9200's new presets tailor your signal to punch effectively through noise and interference. Dynamic presence lift maximizes intelligibility on narrowband radios, while well-controlled bass energy reduces power consumption and prolongs the life of expensive power tubes. The new HF/SW presets also provide an attractive option for those "all talk" domestic MW stations that experience troublesome nighttime interference.	\$4,350
	AES/EBU Digital Input/Output Module	
9200DIO	Module installs in OPTIMOD-AM 9200 Digital. Accepts 32, 44.1, or 48kHz AES/EBU input (XLR). Provides 32, 44.1, or 48kHz AES/EBU output (XLR). Output can be at a different sampling rate from the input, and includes transmitter equalization. 2 lb/0.9 kg.	\$650
	9200 V2.0 Software Upgrade	
9200UPG/V2.00	Upgrades an existing V1.0 9200 with new presets designed specifically for HF broadcasting. Contact your dealer or Orban to order; please supply serial number.	No Charge
	9200 V3.0 Software Upgrade	
9200UPG/V3.00	Upgrades an existing 9200 with new presets and support for Ethernet connectivity using a third-party serial device server. Contact your dealer or Orban to order; please supply serial number.	* No Charge
	*No charge for units less than 12 months old. \$100 for units more than 12 months old.	
	AM Monitor Roll-Off Filter	
MRF023/ACC023	Passive filter that simulates the high-frequency roll-off in AM receivers. Floating input and output (barrier strip). 1 lb/0.5kg.	\$250

ORBAN AM PROCESSING (CONT.)

Model	Description	Pro. User Net Price (USD)
	OPTIMOD-AM 9100B2	
9100B2	<p>OPTIMOD-AM 9100B2 Stereo Audio Processor Complete audio processing for AM medium wave and long wave broadcasting. Contains AGC (automatic gain control), receiver equalizer, six-band limiter and distortion-cancelling clipper, and transmitter equalizer. Electronically balanced inputs (barrier strip), electronically balanced outputs (barrier strip). Stereo for C-QUAM®, NRSC 10kHz low-pass filter (other low-pass cutoff frequencies available on special order). Supplied with MRF023 AM monitor roll-off filters. 4U. 34 lb/15.4 kg.</p> <p>AM Monitor Roll-Off Filter Passive filter that simulates the high-frequency roll-off in AM receivers. Floating input and output (barrier strip). 1 lb/0.5kg.</p> <p>Stereo Upgrade Kits Upgrades mono 9100A to stereo, NRSC 10kHz. 5 lb/2.3 kg.</p>	\$8,950
MRF023	<p>AM Monitor Roll-Off Filter Passive filter that simulates the high-frequency roll-off in AM receivers. Floating input and output (barrier strip). 1 lb/0.5kg.</p>	\$250
RET043A	<p>Stereo Upgrade Kits Upgrades mono 9100A to stereo, NRSC 10kHz. 5 lb/2.3 kg.</p>	\$2,150
RET043B	<p>Stereo Upgrade Kits Upgrades mono 9100B to stereo, NRSC 10kHz. 5 lb/2.3 kg.</p>	\$2,150

ORBAN HD PROCESSING

Model	Description	Pro. User Net Price (USD)
OPTIMOD 6200 HD DIGITAL		
6200	<p>OPTIMOD 6200 HD Digital Audio Processor</p> <p>The OPTIMOD 6200 meets the unique demands of audio processing for DAB, two-channel DTV, and other media transmitting on digital channels without pre-emphasis. The 6200 offers digital two-band or five-band processing and a transparent "look-ahead" limiter for absolute protection against digital clipping, while making the most of perceptually-coded channels with limited bit-rates. CBS Loudness Controller makes it ideal for mono and two-channel stereo DTV applications. Features include LESS-MORE control, user-defined presets, GPI (contact closure) remote control, and computer control via modem or direct serial cable connection. Variable bandwidth capabilities let you match the 6200 to the bandwidth of the transmission channel, from 4kHz to 20kHz. Input sample rates (automatically selected): 32, 44.1, 48kHz. Inputs: AES/EBU (20-bit resolution), AES/EBU sync and electronically balanced stereo analog (XLR). Output sample rates, software-selectable: 32, 44.1, 48kHz. Outputs: AES/EBU and analog monitor (XLR). Internal sample rate: 48 kHz. 2U. 13.5 lb/6.1 kg.</p>	\$6,250
6200S	<p>OPTIMOD 6200S for Webcasting (or) HD</p> <p>A one-rack high version of the OPTIMOD-DAB 6200 has all the same features with the exception of the TV presets, loudness controller and remote interface. 1U. 19 lb/8.6 kg.</p>	\$5,250
OPTIMOD-PC 1100		
1100	<p>OPTIMOD-PC 1100</p> <p>OPTIMOD 6200S-class stereo processing on a PCI card for Windows® 2000 and XP computers, optimized for streaming and digital radio. On-board DSP does all audio processing. The 1100 is also a high-quality sound card with analog I/O, AES/EBU digital output and two mixing AES/EBU digital inputs, either of which can receive sync. Includes WAVE drivers that allow the card to send and receive WAVE streams from the host computer and to mix these with the external analog and digital inputs. Multiple cards can be installed in host computer, limited only by CPU resources and the number of available PCI slots. Readily drives streaming encoders running on the host. Includes PCI card, application software, I/O mating connector and user documentation. Internal sample rate: 48 kHz.</p>	\$1,590
1100/CBLXLR	Prewired cable option for 1100 I/O interface. 6 feet long, terminated in XLR connectors.	\$110
1100/CBL	Prewired cable option for 1100 I/O interface. 6 feet long, unterminated.	\$89
ORBAN STUDIO PROCESSING TOOLS		
8200ST	<p>OPTIMOD-Studio Chassis 8200ST</p> <p>Provides level and peak control at the studio location to protect the distribution system (studio-to-transmitter link) from overload and to maximize the signal-to-noise ratio of the distribution system. Also useful for general studio average and peak level control functions, and is an ideal companion to OPTIMOD-FM, OPTIMOD-AM and OPTIMOD-HF, replacing their built-in front-end AGC functions. Stereo AGC compressor/limiter, HF limiter and peak controller. Precision peak-reading LED bar graph displays. Built-in tone line-up generator. Switchable 25-50-75-100-150ms pre-emphasis. Active balanced inputs (XLR); electronically balanced and floating outputs (XLR). 1U. 12 lb/5.4 kg.</p>	\$2,690
8200ST/SPK	Spare Parts and Semiconductor Kit, 1 lb/0.5 kg.	\$175

ORBAN TV PROCESSING

Model	Description	Pro. User Net Price (USD)
8382 	OPTIMOD-TV 8382 DIGITAL OPTIMOD-TV 8382 DIGITAL AUDIO PROCESSOR Orban's programmable television audio processor for stereo, dual mono (dual language) or single-channel mono. DSP audio processing, fully digital control, 5-band processing, 2-band processing (with CBS Loudness Controller), and Protect processing. Pre-emphasis 50µs or 75µs. Digital I/O included. Inputs: AES/EBU and electronically balanced stereo analog (XLR). Sample rates automatically selected for AES/EBU input: 32, 44.1, 48, 88.1, and 96 kHz. Output sample rates selected in software: 32, 44.1, 48, 88.1, and 96 kHz. Outputs: AES/EBU, electronically balanced and floating stereo analog (XLR). Remote control interface (DB25), RS-232 interface (DB9), 10 Mb/sec Ethernet interface (RJ45). Included PC Remote software runs on Windows® 2000 and XP. 2U. 19 lbs/8.7kg.	\$8,490
	OPTIMOD-TV 8182A OPTIMOD-TV 8182A Audio Processor Complete analog audio processing for mono or stereo television sound. Two-band processing with CBS Loudness Controller and patented Hilbert-Transform Clipper. (Does not support dual-language service; use OPTIMOD-TV 8282 if dual-language is required.). Works with all stereo systems: BTSC, NICAM or dual-carrier. Electronically balanced audio inputs (barrier strip), electronically balanced audio outputs (barrier strip). Specify 50µs or 75µs pre-emphasis. 4U. 31 lb/14.1 kg.	\$7,830
8182AST	Studio Chassis for OPTIMOD-TV 8182A Accessory to OPTIMOD-TV 8182A splits the processor into two sections, which allows the compressor to be located at the studio in order to protect landlines or microwave links. Electronically balanced input (barrier strip), electronically balanced output (barrier strip). 2U. 16 lb/7.3 kg.	\$2,190
8182A/SSK	OPTIMOD-TV 8182A Spares Spare Semiconductor Kit, 1 lb/0.5 kg.	\$100
8182A/SPK	Spare Parts and Semiconductor Kit, 2 lb/0.9 kg.	\$395
8182AST/SPK	Spare Parts and Semiconductor Kit, 1 lb/0.5 kg.	\$100
BTSC TELEVISION STEREO		
275A	275A Automatic Stereo Synthesizer Detects mono and automatically cross-fades to mono-compatible synthesized stereo. Auto-polarity detector and corrector. Defeatable single-ended noise reduction. Electronically balanced inputs (barrier strip), electronically balanced outputs (barrier strip). 1U. 12 lb/5.4 kg.	\$2,850
275ARC	Remote Control Panel for 275A, 1U. 4 lb/1.8 kg.	\$450
275A/SPK	Spare Parts and Semiconductor Kit, 1 lb/0.5 kg.	\$100
8185A	8185A TV Stereo Generator BTSC-standard second-generation television stereo generator. Ideally matched to the OPTIMOD-TV DIGITAL 8282 or the OPTIMOD-TV 8182A (multi-pin interconnecting cable supplied), but can also accommodate other audio processing. Electronically balanced inputs, floating composite output (BNC). 4U. 30 lb/13.6 kg.	\$8,030
8182ASAP	8182A Second Audio Program (SAP) Generator BTSC-standard second audio program generator. Incorporates full OPTIMOD-TV audio processing including CBS Loudness Controller. Electronically balanced inputs (barrier strip), floating composite output (BNC). 4U. 31 lb/14.1 kg.	\$8,490


ORBAN TV PROCESSING (CONT.)

Model	Description	Pro. User Net Price (USD)
	8185A and 8182A Professional Channel Generators Pro channel generator. Plug-in card set for either 8185A or 8182A/SG TV Stereo Generator. Switchable between speech and data processing; speech processor includes compressor and peak limiter to maximize speech intelligibility. Includes two cards and new sub-panel. 3 lb/1.3 kg.	
8185APRO	Upgrade Kit for 8185A TV Stereo Generator.	\$1,300
8182APRO	Upgrade Kit for 8182A/SG TV Stereo Generator.	\$1,300
	Composite Isolation Transformer Eliminates ground loops in longer composite cable runs between generator and exciter. Includes BNC to XLR adapter cable for installation at TV Stereo Generator. Transformer balanced composite in (XLR), transformer floating composite out (BNC). 5 lb/2.3 kg.	
CIT25		\$350
	BTSC Generator Spares	
8185A/SSK	Spare Semiconductor Kit, 1 lb/0.5 kg.	\$120
8185A/SPK	Spare Parts and Semiconductor Kit, 2 lb/0.9 kg.	\$250
8182ASAP/SSK	Spare Semiconductor Kit, 1 lb/0.5 kg.	\$150
8182ASAP/SPK	Spare Parts and Semiconductor Kit, 2 lb/0.9 kg.	\$350
8185APRO/SSK	Spare Semiconductor Kit, 1 lb/0.5 kg.	\$95

AUDIO CODEC PRODUCTS

Model	Description	Pro. User Net Price (USD)
OC7400	<p>OPTICODEC 7400 <u>OPTICODEC 7400 Audio Codec</u></p> <p>The OPTICODEC 7400 is an audio ISO/MPEG1 Layer 2, Layer 3, G.711, G.722, AETA ADPCM compliant codec for use with ISDN, X.21, TCP/IP and UDP/IP. The OPTICODEC 7400 can be used to transport high-quality audio over ISDN or an X.21 compatible network, or any LAN, WAN, ATM or Intranet.</p> <p>The OPTICODEC 7400 is compatible with every industry standard audio codec on the market. Includes 1 x IMD4 ISDN-BR1 interface, Ethernet interface and control software.</p> <p>With NETControl Remote software, any OPTICODEC 7400 can be configured and monitored over a TCP/IP network or Ethernet. (This remote software does not support direct modem connections.)</p>	\$6,890
OC7400/IMD4	<p>ISDN-BR1 interface, which can be added to the 7400 to provide two ISDN interfaces.</p>	\$595
OC7200	<p>OPTICODEC 7200 <u>OPTICODEC 7200 Audio Codec</u></p> <p>Same specifications as OC7400 except built in smaller chassis and without full keypad and display features.</p> <p>The OPTICODEC 7200 is an audio ISO/MPEG1 Layer 2, Layer 3, G.711, G.722, AETA ADPCM compliant codec for use with ISDN, X.21, TCP/IP and UDP/IP.</p> <p>The OPTICODEC 7200 can be used to transport high-quality audio over ISDN or an X.21 compatible network, or any LAN, WAN, ATM or Intranet. The OPTICODEC 7200 is compatible with every industry standard audio codec on the market. Includes 1 x IMD4 ISDN-BR1 interface, Ethernet interface and control software.</p> <p>With NETControl Remote software, any OPTICODEC 7200 can be configured and monitored over a TCP/IP network or Ethernet. This remote software does not support direct modem connections.</p>	\$6,110
OC7400/IMD4	<p>ISDN-BR1 interface, which can be added to the 7200 to provide two ISDN interfaces.</p>	\$595
OC7000	<p>OPTICODEC 7000 <u>OPTICODEC 7000</u></p> <p>The OPTICODEC 7000 is a truly versatile toolkit for broadcasters on the road. It's a portable, tapeless recorder, an editing station and an ISDN codec. It supports ISO/MPEG1 Layer 2, Layer 3, G.722 and G.711, making it the ideal partner for live broadcast, news reporting and interviewing.</p> <p>The OPTICODEC 7000 includes 2 rechargeable Lithium batteries, an AC adapter for the built-in charger, a 16M ATA Flash card and a carrying case.</p>	\$4,680
OC7000/16M	<p>16M ATA Flash card.</p>	\$95
OC7000/32M	<p>32M ATA Flash card.</p>	\$130
OC7000/64M	<p>64M ATA Flash card.</p>	\$190
OC7000/BAT	<p>Battery pack 7.2V BP-915.</p>	\$95

STREAMING MEDIA ENCODING PRODUCTS

Model	Description	Pro. User Net Price (USD)
1010-PC 	OPTICODEC-PC AAC/aacPlus ENCODER	\$1,995
	<u>OPTICODEC-PC PE 1100</u> The OPTICODEC-PC PE 1100 is a package containing an OPTIMOD PC-1100 and OPTICODEC-PC PE MPEG-4 AAC/aacPlus™ encoding software. OPTICODEC-PC PE enables broadcasters to encode multiple audio streams at bit rates from 8 to 320 kbps. Optimized for streaming and digital radio, OPTIMOD-PC 1100 is a stereo audio processor on a PCI card for Windows® 2000 and XP computers. Its on-board 24-bit Motorola DSP does all audio processing. It is also a high-quality sound card with analog I/O, AES/EBU digital output, and two mixing AES/EBU digital inputs with sample rate conversion. The output sample rate can sync to the 1100's internal crystal or to either digital input. The card includes WAVE drivers that allow it to send and receive WAVE streams from the host computer and to mix these with the card's hardware analog and digital inputs. Multiple cards can be installed in the host computer, limited only by CPU resources and the number of available PCI slots. OPTIMOD-PC drives the OPTICODEC-PC PE software, which emits streams compatible with the free Darwin Streaming Server, which can run under BSD, Solaris, Linux, Windows, and Macintosh. The package includes an Optimod-PC 1100 PCI card and application software, OPTICODEC-PC PE AAC/aacPlus™ professional encoding software, I/O mating connector, and user documentation.	
1010-PE	<u>OPTICODEC-PC PE</u> Identical to 1010-PC, but without the Optimod-PC 1100, for customers who wish to add AAC/aacPlus premium encoding technology to their existing Optimod-PC 1100. Includes Opticodec-PC PE professional encoding software, software license and user documentation. NOTE: To operate, OPTICODEC-PC PE requires presence of an Orban OPTIMOD-PC 1100 professional sound card in the same computer. Please supply your OPTIMOD-PC serial number when ordering.	\$495
1010-LE	<u>OPTICODEC-PC LE</u> Similar to 1010-PE, except limited to encoding a single stream at a single bit rate between 8 and 32 kbps, and compatible with all quality sound cards. OPTICODEC-PC LE runs on Microsoft Windows® 2000/XP and supplies streams compatible with the free Darwin Streaming Server, which runs under BSD, Solaris, Linux, Windows, and Macintosh. Includes OPTICODEC-PC LE aacPlus™ encoding software and user documentation.	\$99
1010-UPE	<u>Upgrade Existing Opticodec-LE license to Opticodec-PE</u>	\$395
1010-PKG-1	<u>OPTICODEC-PC PACKAGE</u> Integrated audio processing and MPEG-4 AAC/aacPlus streaming audio encoder hardware package in a two-rack unit computer built on an Intel motherboard and running Windows® XP Professional. Orban's Opticodec-PC PE and one or more Optimod-PC stereo audio processor cards are pre-installed. The base Optimod-PC Encoder contains one Optimod-PC card and can create multiple streams at multiple bit rates if all streams contain the same audio content. Options allow the customer to specify installation of up to two Optimod-PC cards locally or up to 12 Optimod-PC cards by using the available PCI expansion chassis, enabling one Opticodec-PC Encoder to handle multiple programs as well as multiple streams.	\$3,990
	<u>OPTICODEC-PC PACKAGE OPTIONS</u> <ul style="list-style-type: none"> • Darwin Streaming Server (Free) • Additional Opticodec-PC PE's (consisting of software and Optimod PC cards) • PCI Expander Chassis <p>Contact Orban for information and pricing on options.</p>	

STREAMING MEDIA ENCODING PRODUCTS (CONT.)

Model	Description	Pro. User Net Price (USD)
6200S	<p>OPTIMOD-6200S AUDIO PROCESSOR</p> <p>OPTIMOD 6200S for Webcasting</p> <p>A one-rack high version of the OPTIMOD-DAB 6200 has all the same features with the exception of the TV presets, loudness controller and remote interface.</p> <p>Features include LESS-MORE control, user-defined presets, and computer control via modem or direct serial cable connection. Variable bandwidth capabilities let you match the 6200S to the bandwidth of the transmission channel, from 4kHz to 20kHz. Input sample rates (automatically selected): 32, 44.1, 48kHz. Inputs: AES/EBU (20-bit resolution), AES/EBU sync and electronically balanced stereo analog (XLR). Output sample rates, software-selectable: 32, 44.1, 48kHz. Outputs: AES/EBU and analog monitor (XLR). Internal sample rate: 48 kHz. 1U. 19 lb/8.6 kg.</p>	\$5,250
1100	<p>OPTIMOD-PC 1100 AUDIO PROCESSOR</p> <p>OPTIMOD-PC 1100 for Webcasting</p> <p>OPTIMOD 6200S-class stereo processing on a PCI card for Windows® 2000 and XP computers, optimized for streaming and digital radio. On-board DSP does all audio processing. The 1100 is also a high-quality sound card with analog I/O, AES/EBU digital output and two mixing AES/EBU digital inputs, either of which can receive sync. Includes WAVE drivers that allow the card to send and receive WAVE streams from the host computer and to mix these with the external analog and digital inputs. Multiple cards can be installed in host computer, limited only by CPU resources and the number of available PCI slots. Readily drives streaming encoders running on the host. Includes PCI card, application software, I/O mating connector and user documentation. Internal sample rate: 48 kHz.</p>	\$1,590
1100/CBLXLR	Prewired cable option for 1100 I/O interface. 6 feet long, terminated in XLR connectors.	\$110
1100/CBL	Prewired cable option for 1100 I/O interface. 6 feet long, unterminated.	\$89

AUDICY AUDIO EDITING PRODUCTS

Model	Description	Pro. User Net Price (USD)
ORBAN AUDICY SYSTEMS		
<p><u>All systems include:</u> Current Version 3.10 Audicy system software plus one year of free support and software upgrades. Custom-dedicated digital mixer and edit controller with built-in keyboard. Audicy system unit with Orban digital signal-processing FX Engine, including Orban Parametric EQ, OPTIMOD® compression, Lexicon® reverb, Orban Stereo Toolkit, and Orban Broadcast Pro delay, chorus and flange. Two analog audio inputs with A>D converters and four analog audio outputs with D>A converters. SCSI hard drive and 1 one or 2 two SIMM control modules (as priced). 3-1/2" floppy drive for installing software upgrades. 15" SVGA monitor. Switchable 85-135/170-270 VAC, 47-63Hz. One-year factory warranty for parts and labor. Shipping weight 146 lb/70 kg.</p>		
<u>AUDICY Audio Production Systems</u>		
Systems come with 8GB disk storage (32 hours at 32kHz; 26 hours at 44.1kHz).		
AD/8G/256M	Complete Audicy system, 1 SIMM control module with 70 minutes of recording time (32kHz sample rate), audio SIMM memory installed.	\$12,950
AD/8G/384M	Complete Audicy system, 2 SIMM control modules with 105 minutes of recording time (32kHz sample rate), audio SIMM memory installed. Comes with workstand.	\$14,950
AD/8G/512M	Complete Audicy system, 2 SIMM control modules with 140 minutes of recording time (32kHz sample rate), audio SIMM memory installed. Comes with workstand.	\$15,950
<u>AUDICY VX Post Production System</u>		
<p>Audicy VX is an option-packed Audicy system with advanced synchronization, SMPTE time code and machine control features. Designed for intuitive cutting to picture in demanding broadcast audio- for- video applications, Audicy VX combines a standard Audicy system, Intelligent Digital I/O Module, 17" video monitor, and SMPTE/machine control hardware and software. The complete suite of advanced SMPTE features includes chase/lock to incoming time code, 24, 25, 29.97 df, 29.97 ndf, and 30 fps support, offset bumping and format mixing. Absolute sync to external video reference (NTSC or PAL) is provided, along with remote control and automatic chase/lock of professional VTRs to Audicy, using Sony 9-pin protocols.</p>		
AD/VX/8G/256M	Complete Audicy/VX Video Post Production system, 8GB drive (32 hours of disk storage at 32kHz or 26 hours at 44.1kHz), 1 SIMM control module for 70 minutes of recording time (32kHz sampling rate), audio SIMM memory installed.	\$18,950
AD/VX/8G/512M	Complete Audicy VX Video Post Production system, 8GB drive (32 hours of disk storage at 32kHz or 26 hours at 44.1kHz), 2 SIMM control modules for 140 minutes of recording time (32kHz sampling rate), audio SIMM memory installed.	\$20,950
512M	Audicy and Audicy VX systems are fully upgradeable to higher disk storage capacities through use of an additional hard drive or a removable Iomega JAZ drive. Recording time can be expanded up to 140 minutes with additional audio SIMM memory or a second SIMM control module. (See Audio Memory or Additional Drives and Removable Storage, page 15.)	

AUDICY ACCESSORIES & OPTIONS

Model	Description	Pro. User Net Price (USD)
AD/STND	<u>Workstand</u> Custom steel stand for mounting all Audicy components, making it easy to move the system between work areas. Audicy tower may be placed on the stand or, using cable extensions, in another room.	\$950
AD/M15	<u>Monitors</u> Systems include a 15" color SVGA monitor unless otherwise specified. System costs \$300 less without a monitor.	
AD/M17	17" SVGA Monitor (this price available only at time of system purchase).	\$750
AD/FX/TURBO	<u>FX Turbo Rack Option</u> The DSP FX Engine (standard with all systems) is supplied with processing power equivalent to 8 eight digital processors, to run effects such as EQ, compression, reverb and delay. The FX Turbo Rack is a plug-in board that attaches to the DSP FX engine to increase DSP power to the equivalent of 24 digital processors, allowing you to run more effects simultaneously.	\$950
AD/FX/TURBO	FX Turbo Rack.	\$950
AD/DIOM	<u>Intelligent Digital I/O Module</u> Adds AES/EBU and SPDIF digital I/O to the existing analog I/O: left/right in, left/right out, stereo aux out. Provides automatic sample rate conversion on input, and outputs at 32, 44.1, and 48kHz sample rates. Syncs to external master sync sources such as word clock, NTSC/PAL video or AES/EBU or S/PDIF digital inputs for absolute clock synchronization and digital signal compatibility in digital studio environments.	\$2,150
AD/DIOM	Digital I/O Module.	\$2,150
AD/RMT	<u>Audicy Remote Control Module</u> Attaches to the Audicy console via a serial RS-232 cable. Provides 8 opto-isolated inputs for controlling main transport controls, and 8 relay outputs for triggering external devices. Comes with external power supply.	\$675
AD/RMT	Remote Control Module.	\$675
AD/CTRLCBL	<u>Controller Cable Extensions</u> Shielded controller cable extensions allow you to locate your Audicy console further from the system unit. Such a setup is useful for facilities sensitive to fan noise, or for users who want to keep their CPU located in a central "machine room." The controller cable extension is for use with the Audicy console only. Video monitor and computer keyboard extension cables should be adequate for short (under 25-ft) runs. Active extender systems from Cybex or Geffen Systems are recommended where longer cable lengths are required.	
AD/CTRLEXT	Controller Extension Cable, 25-ft/8m.	\$110
	Controller Extension Cable, 100-ft/30m.	\$220
	Contact Orban Customer Service for information on longer cable lengths.	
AD/RKMT	<u>Rack Mount CPU</u> Audicy can be built to order with a black 4-U rack mount system unit instead of the standard tower case.	
	<u>Rack Mount Unit</u>	\$1,200
	<u>Audicy PCI Performance Upgrade / Replacement Tower</u> Upgrades older Audicy ISA PC towers with faster PCI and SCSI hardware. Includes 8GB drive configured with V3.10 Audicy software. Please consult with Orban Customer Service.	\$1,200
AD/PCI/TD	Audicy PCI Performance Upgrade.	\$2,900
AD/PCI/T	Same as above without hard drive and software.	\$1,950

AUDICY ACCESSORIES & OPTIONS (CONT.)

Model	Description	Pro. User Net Price (USD)
AUDIO MEMORY		
	Standard Audicy system comes with Orban SIMM control module(s) equipped with certified audio memory SIMMs. The SIMM control modules are custom-designed to interface directly to our DSP FX Engine over a proprietary high-speed bus. Each module board provides its own fast-access DMA control circuit, with high-density audio RAM access for linear editing, playback and recording. Each pair (64MB) of certified audio memory SIMMs provides 17 minutes of recording time (at 32kHz sampling rate). Up to 4 pairs (256MB) of SIMMs may be loaded in each module for 70 minutes of recording capacity. Two SIMM control modules may be installed in an Audicy, for a maximum of 140 minutes (512MB) of recording capacity.	
AD/SIMM64	Audio SIMM Memory (pair), 17 minutes/64MB.	\$270
AD/SIMM128	Audio SIMM Memory (pair), 35 minutes/128M.	\$590
AD/RCM	SIMM Control Module without SIMMs.	\$990
AD/RCM64	SIMM Control Module with 64MB (17 minutes) installed.	\$1,180
AD/RCM128	SIMM Control Module with 128MB (35 minutes) installed.	\$1,540
AD/RCM192	SIMM Control Module with 192MB (52 minutes) installed.	\$2,075
AD/RCM256	SIMM Control Module with 256MB (70 minutes) installed.	\$2,420
AD/RCM384	SIMM Control Module with 384MB (87 minutes) installed.	\$3,020
AD/RCM512	SIMM Control Module with 512MB (140 minutes) installed.	\$3,590
ADDITIONAL DRIVES		
Expanded Hard Drive Options		
	Audicy comes with a high-performance 8GB SCSI drive for production and library storage. An additional hard drive can be added, using 2GB logical partitions for expanded storage capacity. All drives have been qualified, tested and formatted.	
AD/HD/8G	8GB hard drive provides 32 hours of storage at 32kHz, or 26 hours at 44.1kHz (4 x 2GB logical partitions).	\$1,250
AUDICY NETWORKING		
	Audicy networking allows you to connect one or more Audicy workstations to a file server by way of high-speed UTP Ethernet (10Base-T or 100Base-TX). Servers can be utilized used to store and share productions and library sounds throughout a facility. Servers may can also be used to provide access between Audicy user groups and other computer services residing on the server, such as wide area distribution, alternate backup systems, CD recorders, and WAVE file interchanges.	
	Because networks are almost infinitely scaleable, complex network system architecture, setup and administration must be handled on-site by local engineering talent. Facilities are assumed to have a system administrator on staff capable of running and troubleshooting the network. Orban networking is primarily a software product that provides the root software services and instructions to network a Microsoft [Win95/98 or NT using NetBEUI or TCP/IP) and Novell (3.11, 4.xx, 5.xx) servers, as well as software and hardware support for Audicy workstations.	
	A networked system requires Server Software, plus an Audicy Workstation Kit for each workstation attached to the network.	
	Audicy workstation kits include a qualified UTP Ethernet (10Base-T or 100BaseTX) adapter (specify PCI or ISA) for a single Audicy workstation, installation software, and single system license.	
	Category 5 cabling for servers and workstations must be supplied, installed and certified locally by the customer or installer.	

AUDICY ACCESSORIES & OPTIONS (CONT.)

Model	Description	Pro. User Net Price (USD)
AD/NSW/MS	Audicy Microsoft (Win95/98 or NT) Server Software.	\$950
AD/NK/MS/ISA	Audicy Workstation MS (Win95/98 or NT) Network Kit for ISA Systems.	\$950
AD/NK/MS	Audicy Workstation MS (Win95/98 or NT) Network Kit for PCI Systems.	\$950
AD/NSW/NV	Audicy Novell Server Software.	\$950
AD/NK/NV/ISA	Audicy Workstation Novell Network Kit for ISA Systems.	\$950
AD/NK/NV	Audicy Workstation Novell Network Kit for PCI Systems.	\$950
	<u>Links to Digital Storage and Delivery Systems</u> Audicy's Version 3.10 with an installed networking option can easily export linear broadcast wave format (BWF) files directly from production to a wide variety of on-air delivery systems. On-air system partners who have adopted our "cart chunk" extension to the BWF format can also be sent WAVE files with embedded traffic/continuity information for direct "digital cart" injection into their on-air database. Contact Orban for a list of our current "cart partners."	
	<u>MPEG Hardware Option:</u> Provides MPEG1 Layer 2 file creation for WAVE/cart export. Requires one free ISA slot.	\$1,000

OPTIMOD-TV 8282 OPTIONS / UPGRADES

Model	Description	Pro. User Net Price (USD)
8200D/SRC	<p><u>AES/EBU Digital Input/Output Interface</u></p> <p>Plug-in card to OPTIMOD-TV 8282 DIGITAL that adds AES/EBU-standard input and output. 8200D/SRC provides sample rate conversion and additional output and synchronization features. It accepts 32, 44.1, or 48kHz AES/EBU input and produces 32, 44.1, or 48kHz AES/EBU output. Output can be at a different sampling rate or synchronized to the input, as desired; it can be flat, pre-emphasized the same as set for your audio processing, or output can be pre-emphasized to the NICAM J.17 standard. 5 lb/2.3 kg. IMPORTANT NOTE: The 8200D/SRC requires 8282 software V1.10 or later; order separately if required (supply the serial number of your unit).</p>	\$1,425
8200/SPK	<p><u>OPTIMOD-TV 8282 Spares</u></p> <p>OPTIMOD-TV 8282 uses the same spares kit as does the OPTIMOD-FM 8200.</p> <p>Spare Parts and Semiconductor Kit, 1 lb/0.5 kg.</p>	\$575

OPTIMOD-FM 8200 PROCESSOR OPTIONS / UPGRADES

Model	Description	Pro. User Net Price (USD)
8200UPG/3S3.0	<p><u>8200 V3.00 Software Upgrade</u></p> <p>Upgrades an existing 8200 with new audio processing controls to allow advanced users substantially more control over their station's sound.</p>	No Charge
8200D/SRC	<p><u>AES/EBU Digital Input / Output Interface Upgrade Options</u></p> <p>8200D/SRC provides sample rate conversion and additional output and synchronization features. It accepts 32, 44.1, or 48kHz AES/EBU input and produces 32, 44.1, or 48kHz AES/EBU output. Output can be at a different sampling rate or synchronized to the input, synchronized to the input if desired, can be flat or pre-emphasized as selected for the audio processing, and can be pre-emphasized to the NICAMJ.17 standard. 5 lb/2.3 kg. IMPORTANT NOTE: The 8200D/SRC requires 8200 software V1.20 or later; order separately if required (supply serial number of your unit).</p>	\$1,425
8200D/32	<p>8200D/32 is a plug-in card suitable for most broadcast transmission systems. It accepts 32kHz AES/EBU input and produces 32kHz AES/EBU output pre-emphasized to the same pre-emphasis as selected for the audio processing. 5 lb/2.3 kg.</p>	\$650
CIT25	<p><u>Composite Isolation Transformer</u></p> <p>Eliminates ground loops in longer composite cable runs between OPTIMOD-FM and exciter. Includes BNC to XLR adapter cable for installation at OPTIMOD-FM. Transformer balanced composite in (XLR), transformer floating composite out (BNC). 5 lb/2.3 kg.</p>	\$350
8200UPG/2S/3S	<p><u>Upgrade from 8200/2S to /3S</u></p> <p>Field upgrade kit to convert two-band 8200/2S to multi-band 8200/3S. Adds one DSP card, and multi-band processing structure. (SN# of 8200 must be provided w/ order.) 5 lb/2.3 kg.</p>	\$1,250
8200/SPK	<p>Spare Parts and Semiconductor Kit, 1 lb/0.5 kg.</p>	\$575

CRL PROCESSING PRODUCTS
Including AVOCET PRO/SAP Receivers (CONT.)

Model	Description	Pro. User Net Price (USD)
FM	AMIGO FM COMPLETE ANALOG PROCESSOR	\$2,995
	CRL's most popular processor. Fully equipped and one rack unit high, it comes with multi-band AGC, tri-band limiting and a stereo encoder (generator). Electronically balanced analog left/right inputs and outputs (barrier strip) and composite multiplex outputs (BNC). Pre-emphasis is jumper selectable to 50µs or 75µs. 1RU. 17 lb/7.7 kg.	
	AMIGO SCA	\$2,395
	Subcarrier generator for voice or data applications. Automatic on-off control enables or disables generation of signal when the audio is absent or present. Frequency selectable by internal jumper controls. Factory set for either 67kHz or 92kHz. Another frequency can be set by the factory, (if specified when placing the order), or by the user in the field. Electronically-balanced analog input. Single SCA output (BNC), data input interface (DB9). 1RU. 16 lb/7.3 kg.	
SG800A MULTIPLEX GENERATOR	\$1,795	
Highly stable multiplex generator. Excellent crosstalk and separation specifications. Dual SCA ports allow for the mixing of external SCA signals into the multiplex signal. Equipped with electronically balanced analog left/right inputs. Stereo encoder composite output (BNC) 1RU. 17 lb/7.7 kg.		
	15 kHz Filter Option	\$795
	Optional filter card for the SG800A. Limits audio bandwidth to 15kHz for protection of the stereo pilot signaltone. 0.5 lb/0.2 kg.	
AM	AMIGO AM COMPLETE ANALOG PROCESSOR	\$2,995
	Our best-selling complete AM processor. Includes AGC (Automatic Gain Control), tri-band limiter, and asymmetry controls. Bandwidth is 9.5 kHz (NRSC). Mono or stereo. Electronically balanced analog input, stereo and mono balanced analog outputs. 1RU. 18 lb/8.2 kg.	
	AMIGO TALK NARROWBAND PROCESSOR	\$3,995
	Designed for those stations broadcasting in a sports, talk or news format. 7.5 kHz bandwidth exceeds comfortably meets NRSC standards at 7.5kHz. Includes AGC (Automatic Gain Control), tri-band limiter, and asymmetry controls. Mono only. Electronically balanced analog inputs and outputs. 1RU. 18 lb/8.2 kg.	
	AMIGO HF SHORTWAVE LIMITER	\$3,995
Designed for shortwave and medium wave stations. Bandwidth options are 4.5 kHz and 6.0 kHz. Meets most European bandwidth standards. Contains AGC (Automatic Gain Control), tri-band limiter and asymmetry controls. Mono only. Electronically balanced analog inputs and outputs. 1RU. 18 lb/8.2 kg.		
AM4 MONO SYSTEM — "THE LEGEND"	\$5,995	
The complete CRL AM audio processing system, consisting of the Amigo Studio M gain controller, the Amigo Compressor M four-band compressor and the PMC450 AM limiter. The system provides complete audio control for any broadcast station. Bandwidth is 9.5 kHz (NRSC) mono applications only. Electronically balanced analog inputs and outputs. 3RU. 51 lb/23.2 kg.		
AMIGO STUDIO M	\$1,995	
The Amigo Studio M is the perfect gain controller for any mono application. Gain reduction and AGC release time adjustability make the Amigo Studio M versatile enough for any format. Electronically balanced inputs and outputs (barrier strip). Mono. 1RU. 17 lb/7.7 kg.		

CRL PROCESSING PRODUCTS
Including AVOCET PRO/SAP Receivers (CONT.)

Model	Description	Pro. User Net Price (USD)
TV	AMIGO COMPRESSOR M	\$2,195
	Four-band audio compressor. Adjustable release times. Electronically balanced inputs and outputs (barrier strip). Mono. 1RU. 17 lb/7.7 kg.	
	PMC450 PEAK MODULATION CONTROLLER	\$2,295
	Peak audio limiter. Bandwidth 9.5 kHz (NRSC) or 11 kHz (Australia). Selectable clipping action. Mid-range presence, adjustable pre-emphasis and asymmetry controls on the front panel. Electronically balanced inputs and outputs (barrier strip). Mono. 1RU. 17 lb/7.7 kg.	
	AMIGO TV MONO PROCESSOR	\$2,995
	Complete mono processing package. AGC, peak limiting and bandwidth filtering. fh notch filter available, selectable at either 15.734 or 15.625kHz. Selectable pre-emphasis at either 25, 50, or 75µs. Excellent for ENG/OB trucks or LPTV applications. 1RU. 17 lb/7.7 kg.	
	TVS3001 STEREO TRI-BAND AUDIO GAIN CONTROLLER	\$4,995
	Full-featured stereo gain controller. Phase reversal detection circuit, Fh sync suppression, audio asymmetry removal, CBS Loudness Controller, and linearized AGC. Remote control of the phase reversal and loudness controller circuit via contact closures. Balanced left and right audio inputs and outputs (barrier strip). 2RU. 23 lb/10.5 kg.	
TVS3003 MTS GENERATOR / LIMITER	\$8,995	
Advanced MTS generator includes many features not found on other stereo generators. Input AGC leveling, stereo enhancement, audio low-pass filtering, and an intelligent limiter system work together to provide a clear, clean audio signal. Digital stereo generation ensures a stable signal. Metering and controls on the front panel allow the engineer to view and make adjustments quickly. Balanced audio left and right inputs (barrier strip), video sync loop-through port (BNC), SAP/Pro input (BNC). 2RU. 23 lb/10.5 kg.		
TVS3010 GAIN CONTROLLER/AUDIO LIMITER	\$6,795	
Containing sophisticated circuitry, the TVS3010 is the processor of choice for satellite uplink operations and stations needing superior limiting without stereo generation. An input phase reversal circuit, input sync suppression filter, linearized tri-band AGC, and CBS Loudness Controller contribute to making the audio clean and clear. Stereo enhancement, intelligent limiting, and easy-to-use front panel controls and metering make it the right choice. Remote control via contact closure of the loudness and phase reversal circuits. Balanced left and right analog audio inputs and outputs (barrier strip.) 2RU. 23 lb/10.5 kg.		
TVS3004 PRO GENERATOR	\$2,495	
Full audio processing included. All controls are mounted on the front panel for easy access. The rock-stable sub-carrier output of 102.271 (6.5 times Fh) ensures a quality signal for use in your station. 1RU. 17 lb/7.7 kg.		
TVS3005 SAP GENERATOR	\$3,795	
Superb stability and performance are what set this generator apart from the rest of the field. Features such as sync/video loop-through, optically-coupled remote control and status, and a genuine dbx® encoder card enhance the quality of this unit. Audio input is filtered at fh (15.734kHz), ensuring that audio energy at the fh frequency is removed. Balanced audio input (barrier strip), Pro channel input (BNC), video/sync loop-through (BNC), and subcarrier output (BNC) enable this unit to interconnect with other audio devices in the transmission system. 1RU. 15 lb/10.3 kg.		

CRL PROCESSING PRODUCTS
Including AVOCET PRO/SAP Receivers (CONT.)

Model	Description	Pro. User Net Price (USD)
	TVS3006 SAP AUDIO PROCESSING SYSTEM	
	Contains the Amigo TV mono limiter and the TVS3005 SAP Generator. The system provides for top quality audio for your viewers on the SAP channel. The Amigo TV has AGC and peak and bandwidth limiting while the TVS3005 SAP generator encodes the signal and provides for audio filtering. 2RU. 32lb/14.5kg.	\$6,495
OTHER	AMIGO GRANDE SYSTEM	
	The Amigo Grande System is an upgrade package consisting of two units, the Amigo Studio and the Amigo Compressor, for use in the front of existing Amigo products. The Amigo Grande adds such features as noise reduction, four-band compression and adjustable AGC release timers. The Amigo Grande-S is an upgrade to either the Amigo FM or the Amigo AM. The Amigo Grande-M is an upgrade to the Amigo TV, Amigo Talk or the Amigo HF. All inputs and outputs are electronically balanced.	
	Amigo Grande M (mono)	\$3895
	Amigo Grande S (stereo)	\$4895
	AMIGO STUDIO M	
	Mono gain controller, for use in studios prior to preceding either an STL or recording device. Provides consistent levels to other audio devices as well. Selectable gain reduction and release time, Dynafex noise reduction circuits. Balanced analog audio inputs and outputs (barrier strip). 1RU. 16 lb/7.3 kg.	\$1,995
	AMIGO STUDIO S	
	Stereo gain controller, for use prior to preceding either an STL or recording device in studios. Provides consistent levels to other audio devices as well. Selectable gain reduction and release time. Dynafex® noise reduction circuits. Balanced analog left and right audio inputs and outputs (barrier strip). 1RU. 16 lb/7.3 kg.	\$2,595
	AMIGO COMPRESSOR M	
	The Amigo Compressor M is a four-band compressor. Adjustable release times of the AGC circuit has adjustable release times. Electronically balanced inputs and outputs (barrier strip). Mono. 1RU. 17lb./7.7kg.	\$2,195
	AMIGO COMPRESSOR S	
	The Amigo Compressor S is a four-band compressor. The AGC circuit has adjustable release times. Adjustable release times of the AGC circuit. Electronically balanced inputs and outputs (barrier strip). Stereo. 1RU. 17lb./7.7 kg.	\$2,595
	AMIGO TIMER	
	Real-time event sequencer (timer) for controlling any device remotely, or when a precise start or stop time is required. Outputs can be latched or momentarily closed. Accepts a sync input to slave to an external timing device. Memory can store up to 255 events on eight different outputs. Software allows for editing, adding or deleting of events via a PC, either directly connected or via modem. 1RU. 8 lb/3.6kg.	\$895

ORBAN / CRL TERMS & CONDITIONS OF SALE & LIMITED WARRANTY

THESE TERMS AND CONDITIONS OF SALE AND LIMITED WARRANTY OF CIRCUIT RESEARCH LABS, INC. AND ITS SUBSIDIARIES (HEREINAFTER REFERRED TO AS "ORBAN / CRL") SHALL BE GOVERNED BY AND CONSTRUED ACCORDING TO THE INTERNAL LAWS OF THE STATE OF ARIZONA AND THE UNITED STATES OF AMERICA. THE RIGHTS AND OBLIGATIONS OF ALL PARTIES AND ALL PERSONS OR ENTITIES CLAIMING HEREUNDER SHALL NOT BE GOVERNED BY THE PROVISIONS OF THE 1980 U.N. CONVENTION ON CONTRACTS FOR THE INTERNATIONAL SALE OF PRODUCTS. ANY ACTION OR PROCEEDING ARISING HEREUNDER MAY BE BROUGHT IN THE COURTS OF THE STATE OF ARIZONA OR THE U.S. DISTRICT COURT FOR THE DISTRICT OF ARIZONA.

- Conditions of Sale:** The terms and conditions of sale of the goods ("product") are as indicated below unless otherwise specifically stated by ORBAN / CRL in writing.
- Terms of Shipment:** All shipments are made FOB factory, (for domestic sales), and Ex Works factory (for international sales) unless otherwise specifically stated by ORBAN / CRL in writing. All shipments are made in the manner determined by ORBAN / CRL, unless otherwise requested by BUYER, in which case resultant additional charges and expenses shall be paid by BUYER unless there is prior agreement otherwise in writing by ORBAN / CRL. The BUYER is responsible for payment of any U.S. and other customs, duty and similar or related charges.
- Prices:** Unless otherwise stated, all prices and amounts are payable in U.S. Dollars. Prices are subject to adjustment prior to the time of delivery, should be delayed by the BUYER. Prices do not include any sales, use, excise, or similar taxes. Any such tax applicable to products covered by ORBAN / CRL's quotation, bid, proposal or resultant Purchase Order or Sales Order will be billed to and paid by the BUYER as separate and additional items on the invoice.
- CHANGES IN DESIGN:** ORBAN / CRL reserves the right to modify or change the products in whole or in part, at any time prior to the delivery thereof, in order to include therein electrical or mechanical refinements deemed appropriate by ORBAN / CRL, but without incurring any liability to modify or change any product previously delivered, or to supply new products in accordance with earlier specifications.
- Purchase Orders and Other Documents of Purchaser:** Changes of these Terms and Conditions of Sale and Limited Warranty initiated by the BUYER, such as on Purchase Orders, shall not be considered effective until mutual agreement has been reached in writing between the BUYER and ORBAN / CRL concerning the effect of said changes on price, delivery, or other times and conditions of the Purchase Order of other document.
- Installations, etc.:** The prices quoted by ORBAN / CRL, unless otherwise specifically stated by ORBAN / CRL in writing, do not include installation. The products shall be installed by the BUYER, and the BUYER assumes all responsibility for installation and operation of the product as well as obtaining all permits, licenses, and certificates required by any regulatory agency or any other body for the installation and use of the products. The BUYER agrees to and shall indemnify and hold ORBAN / CRL harmless on account of any liability, loss, cost and expense arising from or connected with installation or operation of the products, and any failure to obtain any such permit, license or certificate.
- Terms of Payment:** Terms are from date of invoice. Specific terms are indicated on the front of ORBAN / CRL's invoice including discount, if any, allowed for earlier payment. BUYER shall pay ORBAN / CRL an interest charge up to and including 1.5% per month from date of shipment until paid in full, on all balances past due for more than thirty days.
- Delivery:** All shipments hereunder are subject to the U.S. Export Administration Act, as amended, the regulations thereunder and all other U.S. laws concerning exports. Damaged and risk of loss of any kind or nature after delivery by ORBAN / CRL to the carrier shall be at the BUYER'S sole risk and ORBAN / CRL shall not be obligated to procure or furnish insurance covering any shipment. Every reasonable effort will be made by ORBAN / CRL to effect delivery within the time specified on ORBAN / CRL's Quotation or Purchase Order acknowledges pursuant to the BUYER'S request for Quotation or Purchase Order acknowledge, provided, however, that ORBAN / CRL shall not be liable for any delay or default due to causes beyond its control or due to the BUYER's fault or negligence. Buyer shall be liable and pay for any additional transportation charges incurred because of BUYER's request to use expedited means of shipment.
- Packaging:** All products shall be shipped in standard commercial packaging, unless otherwise expressly provided on BUYER's Purchase Order. The cost of special packaging as may be required, shall be charged and invoiced separately and shall be paid by BUYER.
- LIMITED WARRANTY:** ORBAN / CRL'S LIMITED WARRANTY IS INCLUDED WITH EACH PRODUCT DELIVERED, AND EXCEPT AS THEREIN PROVED, NO OTHER WARRANTIES EXPRESSED OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, SHALL APPLY TO ANY PRODUCT SOLD HEREUNDER.
- WARRANTY PERIOD:** Orban / CRL warrants that the Products delivered hereunder shall be free from defects in material and workmanship under normal use and service for a period of two (2) years from the date of delivery of the Products to the Product customer.
- RETURNS:** No product may be returned for credit without a written return authorization from ORBAN / CRL. Returned goods will be assessed a 15% restocking charge, plus the actual costs, if any, for refurbishing or packaging as ORBAN / CRL deems necessary. ORBAN / CRL assumes no responsibility for unauthorized returns. Authorized returns shall be shipped ORBAN / CRL's San Leandro, California factory delivered C.I.F. (for domestic sales) or Delivered Duty Paid (for international sales). Any U.S. and other customs duty and similar or related charges for returned products shall be BUYER's responsibility. Damage and risk of loss of any kind or nature respecting returns, shall be at the BUYER's sole risk.
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