TABLE OF CONTENTS

Broadcast Engineering Conference Opening Keynote DAB Meets DTV: If You Ask My Opinion	Digital Adaptive Precorrection (DAP): A Must in Digital Broadcast Transmitters Bret Jenkins, COMARK Communications, Inc.
Sunday, April 5, 19981	Gérard Lemaître, Thomcast70
Creating the DTV Signal: Digital Television	The Constant Efficiency Amplifier A Progress Report
Transmission Issues Sunday, April 5, 19983	Robert Symons, Mike Boyle, John Cipolla, Holger Schult and Richard True, Litton Electron Devices77
HDTV Broadcast of Major League Baseball - A Case Study	
Gerald Collins, Harris Corporation/Broadcast Division	On Channel Repeaters for Digital Television Charles Einolf and Walt Husak, Advanced Televisior Technology Center85
Adjacent Channel Combining in Digital TV Robin Blair and Graham Broad, Radio Frequency	The Challenge of Testing DTV Systems Stephane Billat, SENCORE Electronics and Richard
Systems Limited	Hall, Adherent Systems, LTD92
A Technical Review of Transmission Line Designs and Specifications for Transmitting	Digital Sound Broadcasting: Worldwide Expectations and Progress
Television Signals Kerry W. Cozad, Andrew Corporation16	Sunday, April 5, 1998103
Time Domain Characterization of Antennas for DTV Application	Digital Broadcasting in AM Bands: A Reality Patrick Bureau and Pierre Laurent, Thomcast 105
Ali R. Mahnad, Micro-Tek Engineering25	Critical Issues and Considerations for an All
Slotted Cylinder Antenna Design Considerations for DTV	Digital Transmission Path Frank Foti, Cutting Edge114
Emest Mayberry, Dielectric Communications	Advanced Audio Coding for Digital Sound Broadcasting
Vivotron Transmitter Conversion for	Karlheinz Brandenburg and Oliver Kunz, Fraunhofer
Klystron Transmitter Conversion for Simultaneous Analog and DTV Transmission R.W. Zborowski and David W. Brooking, ITS	Gessellschaft and Schuyler Quackenbush, AT&T Labs - Research121
Corporation40	Technical Development of S-band Satellite Mobile Broadcasting and Communication
The 8-VSB DTV Performance That Can Be	Systems
Expected From Klystron Amplifier Systems Used in Existing Analog UHF TV Transmitters	Shigetoshi Yoshimoto, Takashi Ito, Toshiaki Sato
Dr. Roy Heppinstall, Alan E. Wheelhouse, Geoffrey T. Clayworth, Neil O'Sullivan and Mark Keelan,	and Yoichi Kawakami, The Advanced Space Communications Research Laboratory127
EEV, Ltd	The Path to DTV: Issues of Global
A Fresh New Look At 8VSB Peak To Average	Importance
Ratios and Practical N+/-1 Combining Systems Robert J. Plonka, Harris Corp. /Broadcast	Monday, April 6, 1998137
Division53	
Understanding and Testing the 8VSB Signal Linc Reed-Nickerson, Tektronix Inc	

The Status of Development of Digital Terrestrial Television Broadcasting in Japan	Resolution Comparison of SDTV and HDTV Formats
Osamu Yamada and Makato Sasaki, Association of Radio Industries and Businesses and NHK Science &	Henry W. Mahler, CBS Inc213
Technical Research Laboratories; Masafumi Saito, Association of Radio Industries and Businesses and NHK DTV Lab	Becoming Digital: The Facility Migration into Digital & Multi-channel Broadcast Television Operations
International Standards for Digital Terrestrial	Donald P. Archiable, The Austin Company 220
Television Broadcasting - How the ITU Achieved a Single-Decoder World	Emerging Trends in the Architectural Design of Broadcast Facilities
Stan Baron, NBC, and David Wood, EBU 150	Kevin Schaeffer, Gensler and John Aalto, National TeleConsultants
VALIDATE Field Trials of Digital Terrestrial Television (DVB-T)	
Chris Weck, Institut Fuer Rundfunktechnick GmbH162	The Impact of Digital Video Servers on Broadcas Studio Efficiency, Profitability and Growth Ernesto G. Leon, Concurrent Computer
Consolidation: Engineering Management	Corporation
Consolidation: Engineering Management Perspectives	Comparative Analysis of Full Bandwidth versus
Monday, April 6, 1998171	Compressed HDTV Routing Paul Berger, CBS Inc248
Consolidation of Radio Facilities A Multi-System Approach	Interactivity and Data Broadcasting for
W. Lee Simmons and David L. Simmons, Adventure	Television
Technology, Inc. and W. Lee Simmons & Assoc. Inc	Tuesday, April 7, 1998259
Broadcast Towers: Managing Your Vertical	Would You Like Data with Your Video?
Real Estate	Louise Wasilewski, Scientific Atlanta261
Monday, April 6, 1998181	A New Model for Broadcasting - The Interactive Container
Evaluating Existing TV Towers for DTV Antenna Installation	David Wood, Chairman ITU-R SG 11/Working Party 11A and Mark Krivocheev, Chairman ITU-R Study
Madison J. Batt, P.E. and Timothy A. Wolden, P.E., Tower Engineering Consultants, Inc	Group 11, NIIR
	Advanced Use of TV Set Top Boxes
Tower and Antenna - Holistic Solutions for Digital TV	Raphael Nave, NDS Technologies275
Anthony Magris and Robin Blair, Radio Frequency Systems Limited191	Internet Technologies for Radio Tuesday, April 7, 1998281
Methods and Costs of Installing Initial and	Applications of Internet Service in Tokyo FM
Interim DTV Transmission Facilities on Existing Towers	Tsuyoshi Kawabuchi, Tokyo FM Broadcasting Co, Ltd
Sidney E. Shumate, BIA Media, Inc195	Virtual Production for Television
The DTV Studio: Design and Equipment	Tuesday, April 7, 1998291
Issues for Digital Television Monday, April 6, 1998203	Adding Value to a Virtual Set with Animatable 3D Graphics
Cost Versus Flexibility in DTV Broadcast Stations	Christopher Young, Discreet Logic, Inc293
Paul Harr, Scientific-Atlanta205	

Open Digital Video Systems for the Broadcast Market	Hot Topics: Regulatory Issues in the Real World: Part I
Beth Rogozinski and Tim Myers, MACROMEDIA, Inc301	Wednesday, April 8, 1998375
	Your DTV Assignment - Does It Provide Optimum
Understanding the Future of Video Editing and	Coverage?
Compositing Tools in an Digital Era	Robert D. Weller, P.E., Hammett &
Jared Vishney, Silicon Graphics, Inc310	Edison, Inc377
An Innovative New Solution for Shadow	Hot Topics: Regulatory Issues in the Real
Browsing for Preview and Broadcast Automation	World: Part II
Alan Chaney and Dr. Tony King, Telemedia Systems Ltd	Wednesday, April 8, 1998385
D. U. U District De die Ototion	DTV in the Real World: Digital Television
Building the Digital Radio Station	Case Studies and Standards
Tuesday, April 7, 1998333	Wednesday, April 8, 1998387
New Electronic Music Production Studio,	Naming, Numbering and Navigating the Channel
Computer Aided Music Studio	in the Digital World
Shoji Akita and Kimio Hamasaki, NHK Broadcast	Bernie Lechner, Consultant389
Engineering Department and Masami Fujita, NHK	_ · · · · · · · · · · · · · · · · · · ·
Engineering Administration Department 335	ATV Implementation- An Engineering Perspective
ISDN for Studio Call-in Talk Systems	On a Real World Project
Steve Church, Telos Systems341	Garrison Cavell, Joseph Davis, P.E. and Thomas
Steve Church, Telos Systems	Mann Cavell, Mertz & Perryman, Inc., Greg Johnson
Eliminating Delayed Audio Feedback in Live	KITV396
Broadcasts	
Eric B. Lane, Avocet Instruments, Inc345	ENG/EFP: The Next Generation
	Thursday, April 9, 1998405
Computer Networking and Media	Disital Video Missource Systems for STI and
Management	Digital Video Microwave Systems for STL and
Wednesday, April 8, 1998351	ENG Applications and Test Results
• •	Dr. John B. Payne, NUCOMM, Inc407
Information Technology: Supporting Broadcast	Enoch Making Technologies at the Nagana
Media	Epoch-Making Technologies at the Nagano Winter Olympic Games Start of New Era of Hi-
Sky Kruse, Innerlinx Technologies353	Vision
Acquisition and Management of Digital Assets	Noriaki Kumata, NHK Broadcast Engineering
for the Transitioning Broadcast Facility	Department417
Beth Rogozinski, Systrum Media and Paul Stevens,	
Silicon Graphics	Consumer Electronics for Digital
Onicon Oraphico	Broadcasting
Technology Options for Information Management	Thursday, April 9, 1998 425
in Radio Group Operations	
Jeffrey Kimmel, CBSI/Custom Business	Target Practice: Compressing Your Signal,
Systems367	Expanding Your Reach
-,	Dominick Stasi, Your Choice TV and Mike
DTV Audio Workshop: AC-3 Technology and	Asmussen, Skjei Telecomm, Inc
Demonstration	
Wednesday, April 8, 1998 373	Applying Smart Cards for Access to DTV
**Culiosuay, April 0, 1990	Broadcast
	Luc Vantalon, SCM Microsystems438

A Programmable Architecture For Digital Television Neil Mitchell, Philips Semiconductors, TriMedia Products Group
Data Broadcasting for Radio Thursday, April 9, 1998453
Application of High-Speed Digital FM Broadcast Subcarriers to the Intelligent Transportation System Jim Chadwick, MITRE Company455
SPECIAL SECTIONS
Communications and Connectivity 98 Countdown 2000: A Telecommunications Technology Update Wednesday, April 8, 1998
Satellite-Based Internet Opportunities for Broadcasters Matthew Halsey, William Karunaratne, Bertrand Rojat, Surendra Satija and Gerson Souto, INTELSAT
Advanced Television Systems Committee Standard Program and System Information Protocol for Terrestrial Broadcast and Cable