

analoge + digitale
Tonstudioteknik,
in Germany makes
professional audio mixing
consoles since the company
was founded by
Dipl.-Ing. Gerd Juengling,
who is still the chairman of
the company, in 1978.

adt-audio has a long
tradition in making of
custom build consoles from
the very beginning.

Our history in brief:

1978
company founded by
Dipl.-Ing. Gerd Juengling

1980
First small format console A500
added to the product pallet of
,cassette' based modular consoles

1981
Range of magnetic recording and
reproduce amplifiers extended for
film tape recorders, OEM products
for several local and international
tape deck manufacturers

1982
More specialized modular consoles
systems, special versions for
Neumann disc cutting machines,
special film mix consoles

1983
first complete installation of a
private broadcast network station
in Germany, with 12 consoles, first
inline based, automated music
recording console system C24

1984
upgraded version with extended
multitrack facilities and
automation of the small format
A500 system,
distribution of the A500 by
Tefefunken

1985
basic development of the 5MT
universal console system

1986
production of magnetic amplifiers
and modular ,cassette' audio
consoles discontinued,
major product range music
recording consoles, begin of
development of the MAGNUM V1
console

1987
MAGNUM V1 console, first
consoles delivered with 56
channel, 128 automated faders,
8 stereo sends, 8 VCA groups,
3 stereo masters, 48 channel
routing, dynamics unit per
channel, automated stereo effect
returns with base width control,
master compressors...

1988
First 5MT based broadcast
consoles for German network
stations

1989
Development of extended input
and master modules for the 5MT
music production consoles, new
console automation system

1990
MAGNUM V2 with additional
features, more aux sends and
a new master section with full
mastering feature set

1991
adt-audio becomes German
market leader for large format
audio consoles

1992
First multiformat console
development, delivery of the first
5 channel HDTV consoles

1993
More multiformat console systems
for 5.1 and Dolby Surround

1994
Additional Product line of medium
size live sound console for a
German distributor, upgrade of
multiformat console versions for
5.1 with extended features

1995
5MT C-Series completes the range
of the 5MT System with compact
but professional consoles that
offer the same quality level as the
5MT standard

1996
18 custom build film sound
consoles for a new German
dubbing studio complex in Berlin

1997
Development of the MAGNUM -
V3 and the MR5 music production
system with upgraded console
automation system and recall

1998
Several custom build broadcast
systems for German Broadcast
Network station ZDF, and several
private broadcasting companies

1999
Custom consoles for Studio
Hamburg, Germany, several film
sound consoles, development of
Series D music recording consoles
2000 Broadcast consoles for EXPO
2000, several smaller custom
build broadcast systems, BC-SRD
custom console system for ZDF

2001
Complete redesign of BC3
medium size broadcast
consoles and begin of
development of the V700
and Integrator audio module
systems

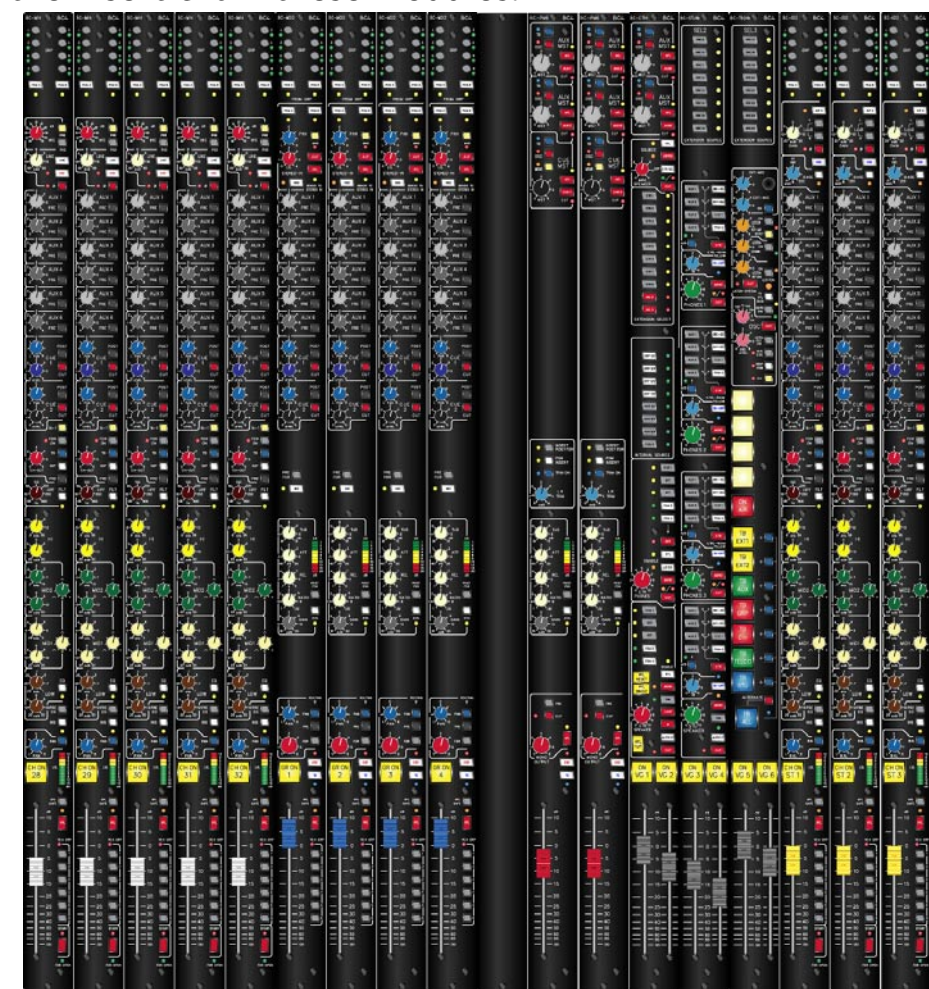
2002
5MT Broadcast consoles for
Viva TV Cologne and QVC
Cable TV Station, in
cooperation with MCI Studio
Hamburg Germany

2003
Completion of the 5MT
broadcast versions with the
5MT-C/Broadcast

2004
Development of Toolkit Pro
Audio System of channel strips,
mixers and other gear,
12 BC3 and 5MT-C consoles
for Radio Uzbekistan, in
cooperation with Siemens
Austria



The BC4 analog Broadcast Console System fills the range between the compact BC3 mixers and the big 5MT Broadcast and Production Consoles. While it shares the basics with the BC3 system and is based on the same solid construction principles, it offers more features in every respect at affordable prices. Already the basic module set offers 10 auxiliary sends, 8 subgroups, two program masters, 6 VCA groups, extensive control and start features and a versatile control room and talkback/playback section. In addition, BC4 is a solid base for custom build broadcast consoles in an ,of the shelf' price range. Up to 96 input modules can be combined with up to 16 mono or 8 stereo audio groups, up to 16 auxiliaries and up to three program masters. The integration of dynamics sections is possible in different versions of input modules, subgroups and program master modules and as a separate module that is mounted in the console's meter bridge above the particular input or group module. Several different mono and stereo dynamics are available that can be integrated into the insert chain these modules.



BC4 offers a well-done combination of professional technical properties with outstanding sound performance. Modern analog audio technique is combined with proven circuitry and skilled craftsmanship in the tradition of German professional audio. High headroom of + 30 dBu, best noise performance of all stages, linear phase response, excellent transient response and the ability of all outputs to drive high capacitive loads without any loss in quality makes this console best suited for any kind of music recording and broadcasting.

All important broadcast specific functions are extensively implemented. Three separate on air busses can be assigned to all channels. The input selection changes the assigned control bus automatically. In combination to the fader switch, the channel on control and the additional start switch, almost all conceivable control systems can be configured without the need of additional, custom build logic. Very comfortable handling of telephone interfaces is possible with the use of special TelCo input modules.

Like all adt-audio Broadcast Consoles, the BC4 broadcast systems uses best quality components, gold plated switches, encapsulated relays, full gold plated IC sockets, gold plated connectors and oversized power supply units to assure high reliability and long lifespan. Fail-safe power supply units and crossover devices are available for every possible console configuration.

Basic technical data:

- general conditions
- 0 dBu = 0.775 V, unless otherwise noted, RMS measurement
- all gain controls and faders in 0 dB position
- Frequency band 40 Hz - 15 kHz, unless otherwise noted
- all data are ,worst case'

Level:

Max. Microphone Gain	70 dB +/- 1 dB
Line Gain	+/- 20 dB,
Nominal Output Level	any level between 0 and +10 dBu, depending on local requirements

Max. Output Level:

40 Hz ... 15 kHz	> +30 dBu into 2 kOhms
Electronically balanced versions	> +26 dBu into 600 Ohms
Transformer balanced versions	> +26 dBu into 600 Ohms

Headroom throughout the entire console:
(Line In, 0 dB, Insert, Fader 0 dB, Pan Pot all to L or R, Master Fader 0 dB.)
+ 30 dBu, referred to input/output level, output limited by load resistance

Input Impedance:

Mic	> 1.6 kOhm (transformer)
All line level inputs	> 10 kOhm

Output Impedance:

Electronically balanced	< 50 Ohms
All electronically balanced outputs can be connected to unbalanced input without level difference,	
Transformer balanced	< 40 Ohms

CMRR:

Mic input (transformer, no pad), 40 Hz ... 15 kHz	> 70 dB
Line level input, electronically balanced 40 Hz ... 15 kHz	> 50 dB
Line level input, transformer, 40 Hz ... 15 kHz	> 60 dB
Outputs, transformer, 40 Hz ... 15 kHz, IEC	> 40 dB, IRT > 60 dB

Frequency response

Without processing stages (EQ, Filters,...) > +/- 0.5 dB any line level input to any output
EQ characteristic: see module data sheet

THD:

@ +6 dBu, 40 Hz - 15 kHz, any input to any output, > 0.1 %
@ +24 dBu, 40 Hz - 15 kHz, any input to any output, > 0.3 %
THD of dynamics units depends on settings and frequency

S/N:

Microphone Preamp:	
Gain 70 dB, input referred	< - 116 dBq
Gain 40 dB, input referred	< - 114.5 dBq
(Quasi peak, according to DIN45405, Filter CCIR468-3)	

Channel in line mode (Line in, 0 dB, to channel out, 0 dB):

EQ off	< -92 dBu
EQ on, 0 dB,	< -89 dBu
(RMS, 22Hz...22kHz)	

Mix noise:
32 fader routed into one group or program master, channel faders down, but on, master fader 0 dB
< -86 dBu, RMS 22 Hz... 22kHz

Crosstalk

Channel to channel, 40 Hz to 15 kHz	
(Channel N routed to group U, Channel M routed to group V, all faders 0 dB, > 80 dB	
Channel On, routing switches, channel and group faders	> 90 dB

All data refer to a typical standard console. They may be different with other configurations. Changes due to technical progress are possible without prior notice.

