



ELECTRONIC EQUIPMENTS FOR BUSES



B&B elettronica srl

Via Malavolti, 49 - 41122 - Modena (Italia)

Tel. +39 059.254575 r.a. - Fax +39 059.254636

bb@bbelettronica.it - www.bbelettronica.it



MCS-TESIA: all in one and touch screen control, security and entertainment. TESIA (Multifunction Control System) is the new technological frontier for the **on-board multimedia control and communication.**

Amplifiers and microphones: audio entertainment; amplification systems for all kinds of buses, interfaceable with all kinds of sources.

Monitor, DVD and digital tuners: on-board infotainment. TFT monitor of different sizes, fixed or with automatic lock.

Video cameras and monitors: security and vehicle control, video surveillance and driving support.

WI-FI: web connection always available.



BBMCM-D - Monitor Touch 7" DIN for MCS TESIA



BBMCU-01 - Central Unit for MCS TESIA



BBMCR-02 - Radio - Amplifier - Mixer for MCS TESIA

INNOVATION IN ON BOARD ENTERTAINMENT

From B&B elettronica research and development, the **TESIA MCS** (Multifunction Control System) is born, the new technological frontier for on board multimedia control and communication.

With the touch screen monitor accessing content has never been easier: Audio, Video, Photo, Cameras, GPS Satnav system.... all combined in a powerful and user friendly ALL in ONE software interface.

Realised on an open platform system concept, scalable power is its strong point.

The upgrade, with expansions and connections to other systems, represents a dynamic character and advancement, the beating heart of **TESIA MCS**.

Versatility and a look toward the future!!

TESIA Multifunction Control System is a new idea to provide added value to your business: stay close to your customer, provide daily support, propose services, advertise and make the company and/or agencies you cooperate with more visible.

SYSTEM FUNCTIONS

AUDIO: separate management of Driver and Passenger area microphones, AM/FM/LW/SW Radio and MP3 content from internal HDD and removable USB and SD media.

VIDEO: complete control of passenger monitor film/photo reproduction from internal HDD and removable USB and SD media in the various formats: AVI, MP4(MPEG-4) and WMV.

SURVEILLANCE: four PAL/NTSC camera inputs which can be displayed simultaneously (quad split) or individually at full screen.

SATNAV: Truck-Bus Satnav software with Europe maps.

OFFICE: calculator and notepad.

CONNECTIVITY: GPRS modem for sending/receiving SMS, WI-FI module to update content on HDD (audio, video and photo) and to operate by remote control (remote desktop software) MCS with Tablet, Smartphone or PC.

EXPANDABILITY: Diagnostics and Service over the Internet.
Virtual hostess, guided tours and advertised routes
Customisation to customer specifications available

AMPLIFIERS



BBA58 - 24Vcc (18÷32Vcc) Digital stereo amplifier
 Dual section: driver (2x20W 4 Ohm) - passengers (2x20W 4 Ohm)
 Independent volume and source selection. 13,8Vcc 3A Vout for Radio/CD/Aux
 Inputs: Mike1 - Mike2 - Radio - Video - Aux - Nav/Phone - 2xRS485



BBA54 - 24Vcc (18÷32Vcc) Remote amplifier - 2x20W 4 Ohm
 13,8Vcc 3A Vout for Radio/CD/Aux
 Inputs: Mike1 - Mike2 - Radio - Video - 2xRS485

BBA54-12 - 12Vcc (11÷14Vcc) Remote amplifier- 2x20W 4 Ohm
 Vout = Vin - 0,2Vcc for Radio/CD/Aux
 Inputs: Mike1 - Mike2 - Radio - Video - 2xRS485



BBT54 - Source selection and volume adjustment control remote keypad for BBA54 and BBA54-12 amplifiers



BBA82 - 12Vcc (10÷15) Stereo amplifier - 2x15W 4 Ohm
 Selection: Radio/Mike



CC82-RA - Wiring cable BBA82-car radio



CC82 - Wiring Cable BBA82



AMB01/C - 24Vcc (20÷32Vcc) Mono microphone amplifier
 20W 4 Ohm - 24Vcc OUT

MICROPHONE AND ACCESSORIES



MP3000 - Dynamic microphone with switch 200 Ohm (40Hz-15KHz 2mV)



SIMBB - Embedded support for MP3000



CSMBB - Clip support for MP3000



BB728 – Support for A728BB-02 flexible rod

MICROPHONE CABLES AND ADAPTERS



CSPR-00 - 4-pole coiled cable

MICROPHONE CABLES AND ADAPTERS



CSPR-05 – Coiled cable for MB3000 fitted with a 5-pole plug

CSPR-06 – Coiled cable for MB3000 fitted with a 4-pole plug



CSPR-10 – Coiled cable for MB3000 fitted with a 5-pole plug and a ring nut



CPM-3000/01A – Extension cable for CSPR-05 fitted with panel plug L=3000mm



CPM-1500A – Extension cable for CSPR-05 L=1500mm

CPM-3000A – Extension cable for CSPR-05 L=3000mm

CPM-1500-MBK – Microphone extension cable fitted with 4-pole connectors L=1500mm



BB013-01 – 4-pole socket to 5-pole plug adapter

BB016 – 5-pole socket to 4-pole plug adapter

VIDEO CABLES



BBCV1 - Video cable L=1000mm

BBCV3 - Video cable L=3000mm

BBCV5 - Video cable L=5000mm

BBCV7 - Video cable L=7000mm

BBCV9 - Video cable L=9000mm

BBCV11 - Video cable L=11000mm

AUDIO CABLES



BBCA1 - Audio cable L=1000mm

BBCA3 - Audio cable L=3000mm

BBCA5 - Audio cable L=5000mm

BBCA7 - Audio cable L=7000mm

BBCA9 - Audio cable L=9000mm

VOLTAGE REGULATOR



BBRT5 - Switching voltage regulator In 24Vcc (16÷38)Vcc Out 13,5Vcc 5A

LOUDSPEAKERS AND GRIDS



SP100-02 - Ø 100 4 Ohm 40W loudspeaker



GR100 - Universal black grid for Ø 100 loudspeakers

ANTENNAS AND EXTENSION CABLES



AR-02 - AM-FM roof car radio antenna fitted with Flex rod L= 38cm



BBANTVAR - TV + Radio bus antenna Radio Frequencies: OL+AM+FM
TV frequencies: (174-230)MHz e (450-820)MHz
Power supply: 12Vcc – Current draw: 38mA - Gain: (20±1)db - L= 44cm



DUPLEX - GPS + GSM Dual Band (900-1800)MHz Antenna



CPA-1000 - Car radio antenna extension cable L=1000

CPA-4000 - Car radio antenna extension cable L=4000

CPA-6000 - Car radio antenna extension cable L=6000

CPA-12000 - Car radio antenna extension cable L=12000

AUDIO/VIDEO SWITCHERS



BBCV-02 - Electronic video switch fitted with 2 Inputs –2 Outputs
(amplified outputs Vin=Vout) Power supply:12/24Vcc (11÷30Vcc)



BBCMBB - Priority microphone switch fitted with 2 Inputs -1 Outputs
and 5-pole connectors Power supply 24Vcc

BBCMBB-12 - Priority microphone switch fitted with 2 Inputs -1 Outputs
and 5-pole connectors Power supply 12Vcc

BBCMBK - Priority microphone switch fitted with 2 Inputs -1 Output
and 4-pole connectors Power supply 24Vcc



BBCAS - Loudspeaker switch for additional AMB01/C amplifier

ADAPTERS AND FILTERS



BBAPOWER - **ELS** (Electronic Loop Separator) audio adapter
POWER IN - PREOUT Power supply:12/24Vcc (11÷30)Vcc



BBAPREIN-01 - **ELS** (Electronic Loop Separator) audio adapter
PREIN - PREOUT Power supply:12/24Vcc (11÷30)Vcc

BBAPREG5 - **ELS** (Electronic Loop Separator) audio adapter **Gain 5**
PREIN - PREOUT Power supply:12/24Vcc (11÷30)Vcc



222003A - Noise filter (LC) max current : 3A

MONITOR LED LINE

HTFT18MS - 18,5" TFT color monitor with automatic folding
(motorized pull out and close) 16/9 format
PAL-NTSC predisposed for VGA Power supply: 24Vcc (18÷32) Video in
Dimensions: 565 x 354 x 95mm Weight: 7500gr



HTFT21F - Fixed 21,5" TFT colour Monitor in 16/9 format
PAL-NTSC predisposed for VGA Power supply: 12-24Vcc (10,5÷32) Video in
Dimensions: 530 x 321 x 47mm Weight: 5600gr



HTFT18F - Fixed 18,5" TFT colour Monitor in 16/9 format
PAL-NTSC predisposed for VGA Power supply: 12-24Vcc (10,5÷32) Video in
Dimensions: 463 x 283 x 46mm Weight: 4400gr



HTFT15F - Fixed 15,6" TFT colour Monitor in 16/9 format
PAL-NTSC predisposed for VGA Power supply: 12-24Vcc (10,5÷32) Video in
Dimensions: 389 x 237 x 41mm Weight: 2900gr

VIDEO CAMERAS AND CCTV SYSTEMS

12V colour video cameras intended for use in vehicles: highly performing, compact metal bodied video cameras fitted with an adjustable bracket (IP66)



BE820 - Rear view video camera (as to vehicle driving direction)



BE822 - Front view video camera (as to vehicle driving direction)

12V colour video cameras intended for vehicle use: easy to install, metal bodied, adjustable video cameras



VBV700C - Rear view video camera fitted with **IR** illuminator + sunshield



VBV300C - MIRROR VBV-300C video camera



VBV320C - NORMAL VBV-320C video camera



VBV485C - Cylinder-type rear view video camera fitted with **IR** illuminator

color video cameras



MD50-01 - DOME video camera



VBV-710AC - IR SHUTTER video camera

Quad - Accessories



EDM50 - (11-30Vcc) Programmable control unit for single/multiple view of video camera different inputs; ID imaging also available



LS-20A - Low Speed Trigger Module

Monitor

	<p>VBV-770FM- Monitor TFT 7 VBV-770FM QUAD-4VIN</p>
	<p>VBV770M - Monitor TFT 7 VBV-770M 3VIN</p>
	<p>VBV750M - Monitor TFT 5 VBV-750M 3VIN</p>
	<p>VBV7104FM - Monitor TFT 10 VBV-7104FM QUAD-4VIN</p>
	<p>BBTFT8 - Monitor TFT 8 Fixed Power supply: 12Vcc (11÷14)</p>
	<p>BBTFT10 - Monitor TFT 10 Fixed Power supply: 12Vcc (11÷14)</p>
<p align="center">Cables for power supply/timed switch</p>	
	<p>BBCAT5 - Video camera cable L=5000mm</p>
	<p>BBCAT10 - Video camera cable L=10000mm</p>
	<p>BBCAT15 - Video camera cable L=15000mm</p>
	<p>BBCAT20 - Video camera cable L=20000mm</p>
	<p>BBCAT25 - Video camera cable L=25000mm</p>
	<p>BBCAT30 - Video camera cable L=30000mm</p>
<p align="center">Power supply/timed switch</p>	
	<p>BBATMC - Power supply/ timed switch suitable for MONITOR-VIDEO CAMERA</p>
	<p>BBATMQ - Power supply/timed switch suitable for MONITOR-QUAD</p>

BE set cables**BEL105** - QUAD-BE800 VIDEO CAMERA cable L=5000mm**BEL110** - QUAD-BE800 VIDEO CAMERA cable L=10000mm**BEL115** - QUAD-BE800 VIDEO CAMERA cable L=15000mm**BEL120** - QUAD-BE800 VIDEO CAMERA cable L=20000mm**BEL130** - QUAD-BE800 VIDEO CAMERA cable L=30000mm**VBV set cables****VBVL405** - VIDEO CAMERA-CONTROL MODULE cable L=5000mm**VBVL410** - VIDEO CAMERA-CONTROL MODULE cable L=10000mm**VBVL420** - VIDEO CAMERA-CONTROL MODULE cable L=20000mm**VBVL430** - VIDEO CAMERA-CONTROL MODULE cable L=30000mm**VBVL520** - Cable L=20000mm