ENG/EFP/SPORTCAM

1647.S

IT. FIT

THOMSON BROADCAST

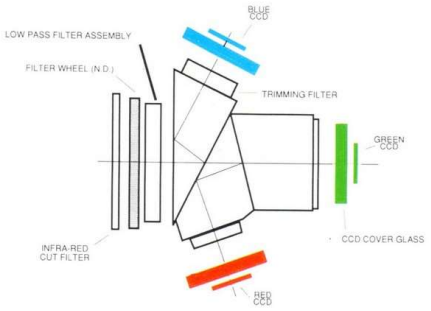
THE IMAGE OF PROGRESS

*THE NEW LIGHTWEIGHT **TTV 1647 S** FROM **THOMSON BROADCAST** IS A HIGH-QUALITY CAMERA WHICH USES THE LATEST HIGH-RESOLUTION **IT** OR **FIT CCD** SENSORS. THIS CAMERA IS IDEALLY SUITED FOR ALL VERY HIGH QUALITY **ENG, PSC** OR **EFP** APPLICATIONS. NUMEROUS TECHNICAL INNOVATIONS HAVE BEEN INCORPORATED IN THE **TTV 1647 S** TO OFFER USERS THE FULL BENEFITS OF THE LATEST ENHANCEMENTS IN SOLID-STATE SENSOR TECHNOLOGY : **IT, FIT, MICROLENSES...** THE **TTV 1647 S** HAS A COMPLETE RANGE OF ADAPTORS WHICH MEET THE VARIOUS REQUIREMENTS OF VIDEO PRODUCTION.*

RESOLUTION

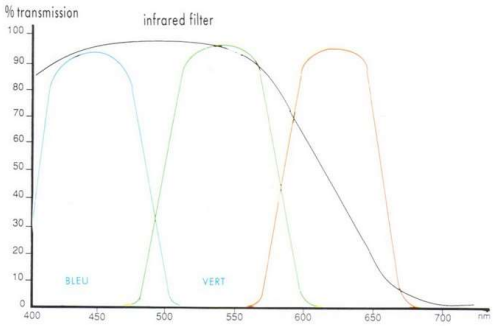
The association of the best optical and electronic techniques makes it possible to deliver exceptional picture definition while overcoming aliasing effects.

- *High-resolution 440.000 pixels IT or FIT CCD.*
- *Contour correction.*
- *Spatial offset technique.*
- *Sophisticated optical low-pass filter.*
- *Resolution : 700 TV lines.*



COLOURIMETRY

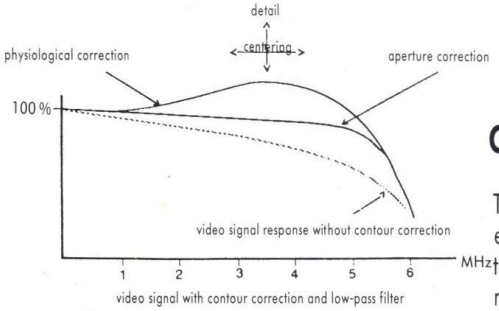
The use of a beam spliter, an infrared cut filter suited to the spectral response of the CCD, and an adjustable colour matrix guarantee excellent colour reproduction and full compatibility with tube-type cameras.



CONTOUR

A new contour correction circuit extracts a detail signal from R, G and B channels allowing sharp images to be produced in highly coloured environment.

- *Double correction : aperture and physiology.*
- *Variable noise suppression.*
- *Remote control of contour level.*



COLOUR TEMPERATURE

To enhance sensitivity, our cameras are equipped with an electronic colour temperature corrector, which overcomes the need to use coloured compensation filters.

DYNAMIC RESOLUTION

With its electronic shutter, the TTV 1647 S offers razor-sharp pictures even with fast moving subjects.

- *1/60 to 1/2000 s.*

SENSITIVITY

The use of sophisticated video signal processing techniques and the excellent sensitivity of CCD sensors make it possible to shoot under very low lighting conditions.

- *14 Lux at F/1.4 (7 Lux with microlenses) with gain of +21 dB.*
- *Sensitivity of 1000 Lux at F/4 1000 Lux at F/5.6 with microlenses)*
- *Electronic colour temperature correction.*
- *Very low fixed pattern noise.*

LENSES

The TTV 16477 S has a standard bayonet mounting for a wide range of 2/3" lenses. For perfect picture quality, lenses designed for CCD cameras are recommended.

- *Studio lens with Sportcam frame.*

AUDIO

The camera is compatible with all types of microphones (electrostatic and electrodynamic).

- *12 V phantom power supply.*

CONTRAST COMPRESSION

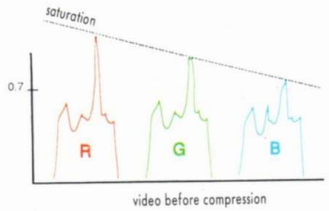
The "WHITE COMPRESS" allows full advantage to be taken of the dynamic range of the sensor and makes shooting easier in difficult lighting conditions.

- *Wide range contrast compressor.*
- *Colour and detail restitution in overexposed areas.*

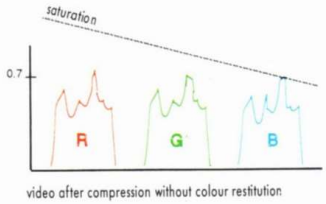
CCD

The TTV 1647 S is equipped with the latest IT or FIT solid-state sensors and benefits from all the inherent advantages of CCD. The original sensor assembly system overcomes temperature-related registration variations.

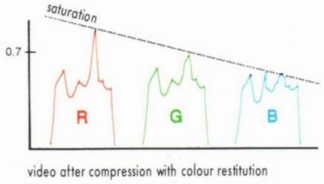
- *TTV 1647 ST : IT (PAL : 786 pixels/line, NTSC : 768 pixels/line).*
- *TTV 1647 STX : IT with microlenses (PAL : 786 pixels/line, NTSC :768 pixels/line).*
- *TTV 1647 SF : FIT (PAL : 754 pixels/line, NTSC : 838 pixels/line).*
- *TTV 1647 SFX : FIT with microlenses (PAL : 754 pixels/line, NTSC :838 pixels/line).*



video before compression



video after compression without colour restitution



video after compression with colour restitution

CAMCORDER

A TTV 1647 S camera head connected to TTV 3505 videocassette recorder for use as a high performance ßetacam SP camcorder.

- *1 high quality video channel : Luminance at 5.5 MHz, Chrominance at 2 MHz.*
- *2 longitudinal audio channels at15KHz*
- *2 AFM audio channels at 20 KHz.*
- *Confidence heads (simultaneous monitoring playback).*
- *Time code generator (VITC, LTC).*

CA 25

With the CA 25 rear adaptor, the TTV 1647 S can be used either with a remote VCR or in multicore EFP.

- *26 pins connector for portable VTR or multicore CCU. CCZ cable (26-26 pins, ßetacam SP) CCZQ Cable (26-14 pins, BVU or 1"C) CM 1625 cable (26-26 pins, multicore CCU)*
- *12 V DC input : XLR 4.*
- *Microphone input : XLR 3.*
- *Intercom headset connector.*
- *Accessory holder. (5,5" viewfinder etc.)*
- *Video return output.*

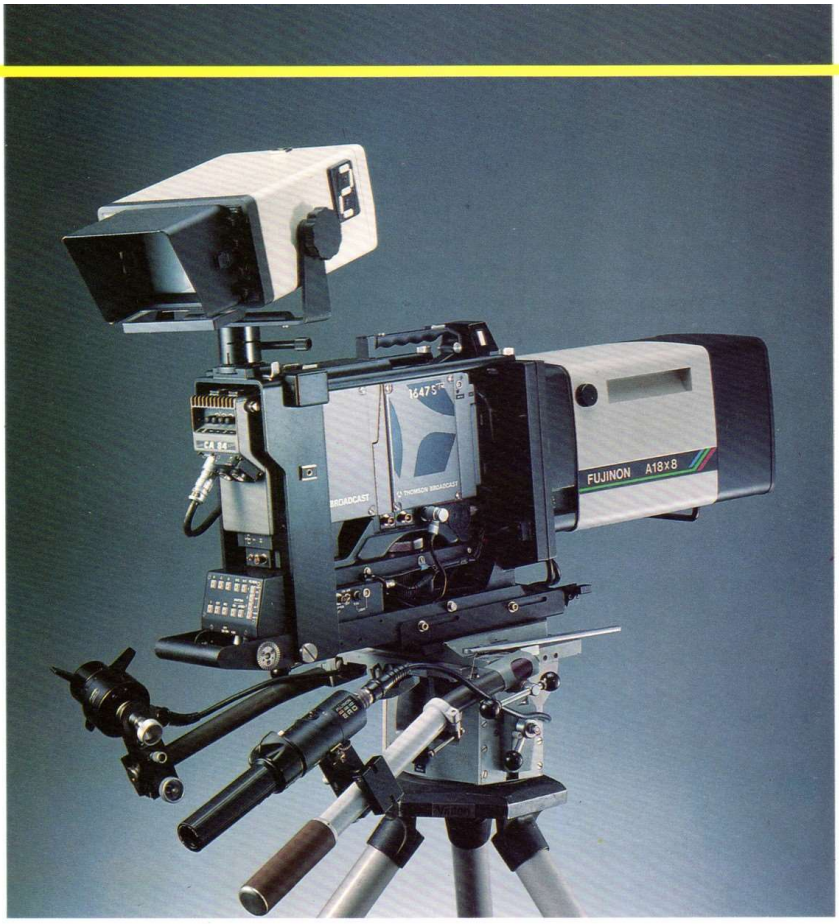
CA 84

With the CA 84 rear adaptor, the TTV 1647 S can be used in studio production configuration. This configuration makes a well balanced camera for high performance studio or outside broadcast applications.

- *Portable companion for TTV 1542 studio camera*
- *Wide band RGB triax.*
- *Dual intercom : cameraman/engineer and cameraman/producer.*
- *Three viewfinder positions : CAM, EXT, MIX.*
- *Video return output.*

SPORTCAM

The Sportcam configuration (TTV 1647 S + CA 84 + Studio/OB lens cradle) converts the TTV 1647 S into a genuine studio camera. The modular design of this camera makes it eminently suitable for all types of production environment: ENG, sports coverage with 1500 m triax cable and long range zoom or studio lens configuration with teleprompter. The Sportcam uses the same camera control unit and the same control panels as the studio camera TTV 1542, making it an ideal complement for a multicamera production.

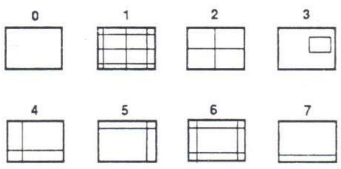


- *Support frame for large Studio/OB lenses.*
- *7" high-resolution and high-brightness viewfinder.*
- *Teleprompter facilities.*
- *12 V DC auxiliary power outlet.*
- *Local Control Panel.*

VIEWFINDER

The Sportcam's viewfinder is designed to offer maximum visual confort for the cameraman and to maintain camera balance in all positions.

- *7" B/W high-resolution viewfinder.*
- *Very high brightness: 600 nits.*
- *Graticule with 7 programmable positions.*
- *+/- 90° rotation, +/- 50° tilt.*
- *Video return and MIX selection.*



3,4,5, adjustable

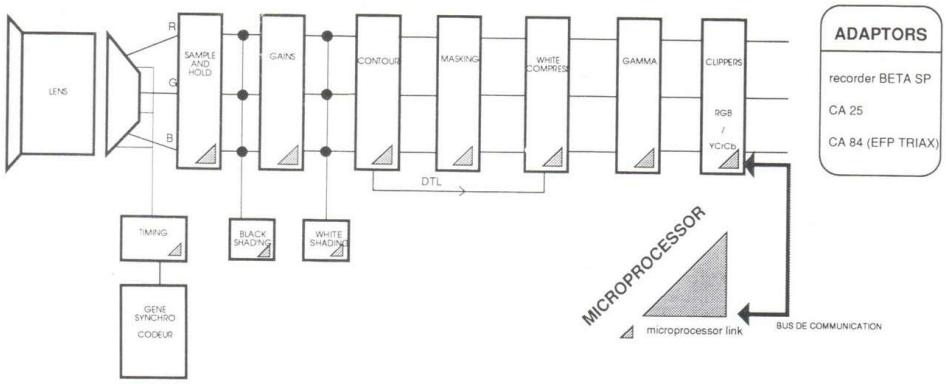
TELEPROMPTER

The Sportcam offers all facilities needed for connection of a teleprompter.

- *Auxiliary power supply 70 W/12 V.*
- *Teleprompter output (up to 300 m).*
- *External tally.*

1647S

SPECIFICATIONS



CAMERA HEAD

Standard
NTSC, PAL, SECAM.

Sensor
TTV 1647 ST : 3 CCD 2/3" IT (Interline Transfer)(PAL: 786 pixels/line, NTSC: 768 pixels/line).
TTV 1647 STX: 3 CCD 2/3" IT (Interline Transfer) with microlenses (PAL: 786 pixels/line, NTSC: 768 pixels/line).
TTV 1647 SF : 3 CCD 2/3" FIT (Frame Interline Transfer) (PAL: 754 pixels/line, NTSC : 838 pixels/line).
TTV 1647 SFX : 3 CCD 2/3" FIT (Frame Interline Transfer) with microlenses (PAL: 754 pixels/line, NTSC : 838 pixels/line).

Optical system
F/1,4 RGB beam splitter with integral quarter wave filter.

Filter wheel
3200° K, 5600° K + 1/4 ND, 5600° K, 5600° K + 1/16 ND.

Sensitivity
1000 Lux at F/4 (90 % reflectance).
1000 Lux at F/5.6 with microlenses (90 % reflectance).

Minimum illumination
14 Lux, lens at F/1,4 and gain 21 dB.
7 Lux with microlenses, lens at F/1,4 and gain 21 dB.

Signal/noise ratio
NTSC : 62 dB, PAL/SECAM : 59 dB.

Resolution
700 TV lines at center.

Registration
Zones 1,2,3 : 0,05 %

Geometry
Less than 0,1 % (without lens).

Input signals
Genlock.
Mic in.

Output signals
Encoded video.
Test.

Others
Beta interface.
Lens 12 pins.
Remote control panel.

Weight
3,5 kg approx.

Environment temperature
- 20° C + 45° C.

VIEWFINDERS

1.5".
5.5".
7" avaible on Sportcam only.

CA 25

Mic in : XLR 3.
DC in : XLR 4 - 10.5/17 V.
Intercom headset connector.
VTR : 26 pins
Video return.

CA 84

CCU : Triax Lemo or Fischer.
Incom/PGM : 2 Tuchel.
Ext video out.
Video return.

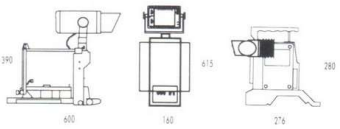
SPORTCAM LENS FRAME

CCU : Triax Lemo or Fischer.
Camera : Triax Lemo or Fischer.
Utility power : XLR 4 - DC 12 V.
Prompter out.
External on air.

LENSES

EFP lenses
2/3" lenses without diascope according to SMPTE rules :
- Angenieux : 14 x 8, 14 x 9.
- Canon : 8 x 6, 14 x 8.5, 18 x 8.5, 33 x 11.
- Fujinon : 3.5 x 6.5, 7 x 7, 8.5 x 5.5, 14 x 8.5, 18 x 8.5, 24 x 11.5, 24 x 16.5.
- Nikon : 9 x 5.5, 15 x 8.5, 19 x 8.

Studio lenses
2/3" lenses without diascope according to SMPTE rules :
- Angenieux : 15 x 6.5, 20 x 8.5, 40 x 9.5.
- Canon : 16 x 8, 20 x 7.5, 45 x 9.5, 50 x 9.5, 55 x 9.5, 55 x 13.5.
- Fujinon : 15 x 8, 18 x 8, 20 x 7, 34 x 10, 44 x 9.5, 55 x 9.5.



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