THEORY OF OPERATION

The signal of each connector

CN601

13V	Power supply input of 13V supplied by AC adopter
GND	Ground in 13V power supply

CN602

13V	Power supply output of 13V supplied to VIZCAM600
GND	Ground in 13V power supply

CN302

CCD-Signal	Input terminal of taking picture signal taken picture with VIZCAM600
9V:	9V power-supply output terminal supplied to VIZCAM600. This power-supply synchronizes with 9V power-supply supplied to CN302 and is supplied. When this power supply is supplied, VIZCAM600 begins initializing.
M-CLK:	Clock signal input which is generated with VIZCAM600 and used to take picture (14.31818MHz)
6.2V:	Power supply output of 6.2V supplied to VIZCAM600
C.sync:	Synchronous signal of the horizontal and vertical standard for CCD drive used with VIZCAM600
VIDS:	Control signal output sent from CODEC board to VIZCAM600
Audio:	This signal is an input terminal of the voice signal taken with the microphone installed in VIZCAM600.
Audio-GND:	Ground of voice signal

CN303

CCD-Signal	Taking picture signal output to CODEC board This signal is a signal of which is taked picture with VIZCAM600 or VIZCAM1000 α. The signal is selected by the control signal sent from the CODEC board.
9V	9V power supply supplied by CODEC board When this power supply is supplied, VIZCAM1000 α begins initializing.
M-CLK	Clock signal which is made with VIZCAM1000 α and used to take picture (14.31818MHz) This clock synchronizes with M-CLK supplied by VIZCAM600 when VIZCAM600 is connected.
6.2V	6.2V power supply supplied by CODEC board
C.sync	Synchronous signal of the horizontal and vertical standard for CCD drive supplied by CODEC board
VIDS	Control signal sent from CODEC board The control signal sent to the CODEC board is superimposed to non-reflection part of CCD-Signal.
Audio:	This signal is an input terminal of the voice signal taken with the microphone installed in VIZCAM600.
Audio-GND:	Ground of voice signal

Operation principle of VIZCAM1000 α

VIZCAM1000 α is a single focus camera used as an option of CanoMedia (video conference system).

VIZCAM1000 α is inserted between the CODEC board and VIZCAM600 (zoom camera) of CanoMedia.

VIZCAM1000 α switches the signal of VIZCAM600(zoom camera) or the signal of VIZCAM1000 α (single focus camera) by the selection, outputs to the CODEC substrate, and is a taking picture device with the switch function.

The content of the processing in VIZCAM1000 α,

① CCD converts the reflection image imaged formation throw the lens on CCD into the electric image signal of the cereal.
② Change at amplification level of detected electric signal
③ Detection of VIZCAM600 whether connected
④ Either of the signal of VIZCAM600 or the internal camera signal is selected and outputed to the CODEC board.
⑤ PLL circuit which is synchronization of operation clock of VIZCAM1000 α with operation clock of zoom camera which adheres to CanoMedia by standard
⑥ CCD drive with the above-mentioned clock
⑦ Output of clock which drives CCD to CODEC board
⑧ Operation information on the operation button (front panel) is sent to the application of the CanoMedia (video conference) .
⑨ Communication of control signal with CODEC board
⑩ Control whether to output control signal from CODEC board to VIZCAM600 (Only when the signal of VIZCAM600 is selected as a output picture signal, the control signal is output to VIZCAM600).
⑪ Power-supply supply to VIZCAM600 which adheres to CanoMedia by standard

Clock relation explanation

An internal oscillation circuit is composed of the IC where CCD is driven with a crystal oscillator of 28.63636MHz.

The clock which drives CCD uses 14.31818MHz which is two dividing the source oscillation clock. This clock is things except for the CCD drive and is used as a clock of the microcomputer. Moreover, this clock is sent to the CODEC board and is used in the part of the processing of the signal of the CODEC board. In addition, when clock (14.31818MHz) is input from VIZCAM600, the internal oscillation clock is synchronized with the input clock by using the PLL circuit.