

# FMS6403

## Triple Video Drivers w/Selectable HD/Progressive/SD/ Bypass Filters for RGB and YPbPr Signals

### Features

- Three video anti-aliasing or reconstruction filters
- 2:1 Mux inputs for YPbPr and RGB inputs
- Supports D1, D2, D3 and D4 video D-connector (EIAJ CP-4120)
- Selectable 8MHz/15MHz/30MHz 6th order filters plus bypass
- Works with SD (480i), Progressive (480p) and HD (1080i/ 720p)
- AC-coupled inputs include DC restore /bias circuitry
- All outputs can drive AC or DC coupled 75Ω loads and provide either 0dB or 6dB of gain
- 0.4% differential gain, 0.22° differential phase
- Lead (Pb)-free packaging

### Applications

- Progressive scan
- Cable set top boxes
- Home theaters
- Satellite set top boxes
- DVD players
- HDTV
- Personal Video Recorders (PVR)
- Video On Demand (VOD)

### Description

The FMS6403 offers comprehensive filtering for TV, set top box or DVD applications. This part consists of a triple 6th order filter with selectable 30MHz, 15MHz, or 8MHz cutoff frequencies. The filters may also be bypassed so that the bandwidth is limited only by the output amplifiers.

A 2 to 1 multiplexer is provided on each filter channel. The triple filters are intended for YPbPr and RGB signals. The DC clamp levels are set according to the RGB\_SEL control input. YPbPr sync tips are clamped to 250mV, 1.125V and 1.125V respectively while RGB sync tips are all clamped to 250mV. Sync clamp timing can be derived from the Y/G inputs or from the external SYNC\_IN pin. The 8MHz and 15MHz filter settings support bi-level sync while the 30MHz filter setting and bypass mode support tri-level sync.

All channels nominally accept AC coupled 1Vpp signals. Selectable 0dB or 6dB gain allows the outputs to drive 1Vpp or 2V<sub>pp</sub> signals into AC or DC coupled terminated loads with a 1V<sub>pp</sub> input. Input signals cannot exceed 1.5Vpp and outputs cannot exceed 2.5V<sub>pp</sub>.

### Ordering Information

Model	Part Number	Lead Free	Package	Container	Pack Qty.
FMS6403	FMS6403MTC20_NL	Yes	TSSOP-20	Tube	94
FMS6403	FMS6403MTC20X_NL	Yes	TSSOP-20	Tape and Reel	2500

Temperature Range: 0°C to +70°C

#### DISCLAIMER

FAIRCHILD SEMICONDUCTOR RESERVES THE RIGHT TO MAKE CHANGES WITHOUT FURTHER NOTICE TO ANY PRODUCTS HEREIN TO IMPROVE RELIABILITY, FUNCTION OR DESIGN. FAIRCHILD DOES NOT ASSUME ANY LIABILITY ARISING OUT OF THE APPLICATION OR USE OF ANY PRODUCT OR CIRCUIT DESCRIBED HEREIN; NEITHER DOES IT CONVEY ANY LICENSE UNDER ITS PATENT RIGHTS, NOR THE RIGHTS OF OTHERS.

#### LIFE SUPPORT POLICY

FAIRCHILD'S PRODUCTS ARE NOT AUTHORIZED FOR USE AS CRITICAL COMPONENTS IN LIFE SUPPORT DEVICES OR SYSTEMS WITHOUT THE EXPRESS WRITTEN APPROVAL OF FAIRCHILD SEMICONDUCTOR CORPORATION.

As used herein:

1. Life support devices or systems are devices or systems which, (a) are intended for surgical implant into the body, or (b) support or sustain life, or (c) whose failure to perform when properly used in accordance with instructions for use provided in the labeling, can be reasonably expected to result in significant injury to the user.

2. A critical component is any component of a life support device or system whose failure to perform can be reasonably expected to cause the failure of the life support device or system, or to affect its safety or effectiveness.

Rev. I13