



MStar Semiconductor













Company Profile

- MStar Semiconductor is a dedicated mixed signal and display IC design house located in Hsinchu Taiwan
- Team: More than 30 mixed signal designers with key team members from mixed signal design group of TI, Dallas
- History: The design team joined System General from TSMC in 2002, then spun off from SG company in 5/02 to form MStar
- Products: Flat Panel Display IC , Mixed Signal ASIC
- Finance: Capital NT\$175M
- Revenue: Y2002 NT\$280M

Y2003 NT\$720M(Plan)







Product Family



ADC only 110-205 MHz



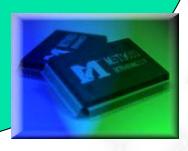
LCD All in One controller

Teamwork - 以人為本、團隊合作

Mixed Signal



TV / Video LCD TV Controlle Video decoder De-interlace **HDTV**



Mixed Signal ASIC IC

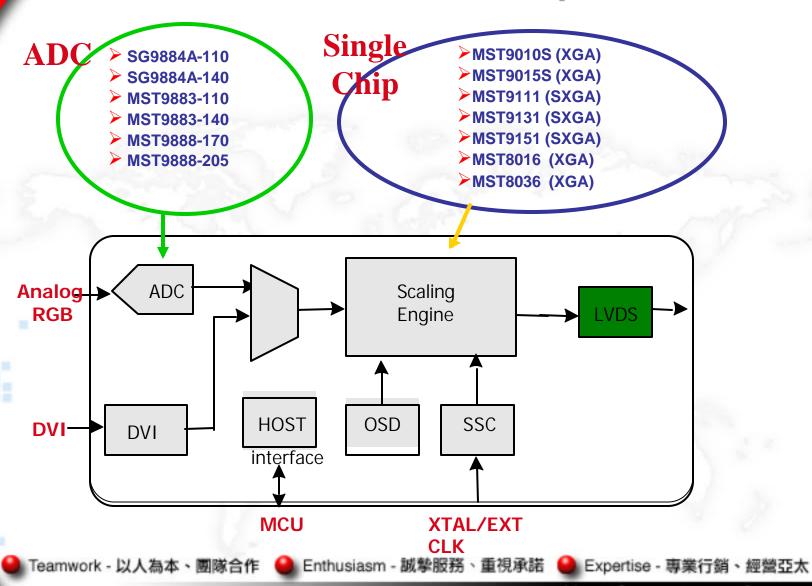
Enthusiasm - 誠摯服務、重視承諾 🔴 Expertise - 專業行銷、經營亞太

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MStar Product Lineup







Single-Chip Product Lineup



MST9xxx

Header

Resolution

Input

Output

MST 9

0: XGA

1 : **SXGA**

1 : **ADC**

2 : **DVI**(**TMDS**)

3:DUAL

4 : ADC*2

5 : ADC*2 + DVI

0: TTL w/o Tcon

1: LVDS w/o Tcon

5: TTL w/ Tcon

6: RSDS w/ Tcon

new RSDS/LVDS serise MST 8





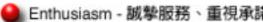
Expertise - 專業行銷、經營亞太



ADC(A/D Converter) Key Features

- > 110 MSPS/140 MSPS Maximum Conversion Sampling Rate
- Integrated 5-bit pixel clock phase adjustment
- Integrated clamp with timing generator
- **Integrated Brightness & Contrast controls**
- Full Sync Processing
- Mid-scale Clamping
- Pin compatible with AD9883A/AD9884A











Single Chip Key Features

- ADC up to 135MHz (SXGA)
- DVI 1.0 compliant up to 1.65GHz
- LVDS TX up to 700MHz, measured Jitter < 100ps
- **RSDS** Panel support with timing controller
- **Integrated 7414, Integrated DDC**
- Low EMI with Spread Spectrum Clocking
- Multi-color OSD supported (16 colors)
- sRGB support (compliant with Microsoft)
- Lowest standby power < 0.05W (SOG supported)
- 128 pin QFP package -> Small board size
- Shared firmware and hardware between 15" and 17", analog and dual models









Commitment

- Superior Quality
- **Superior Service**
- **Constant Innovation**
- **Long Term Partnership**
- **Price Competitive**









