

NCS2566

Six-Channel Video Driver with Triple SD & Triple Selectable SD/HD Filters

NCS2566

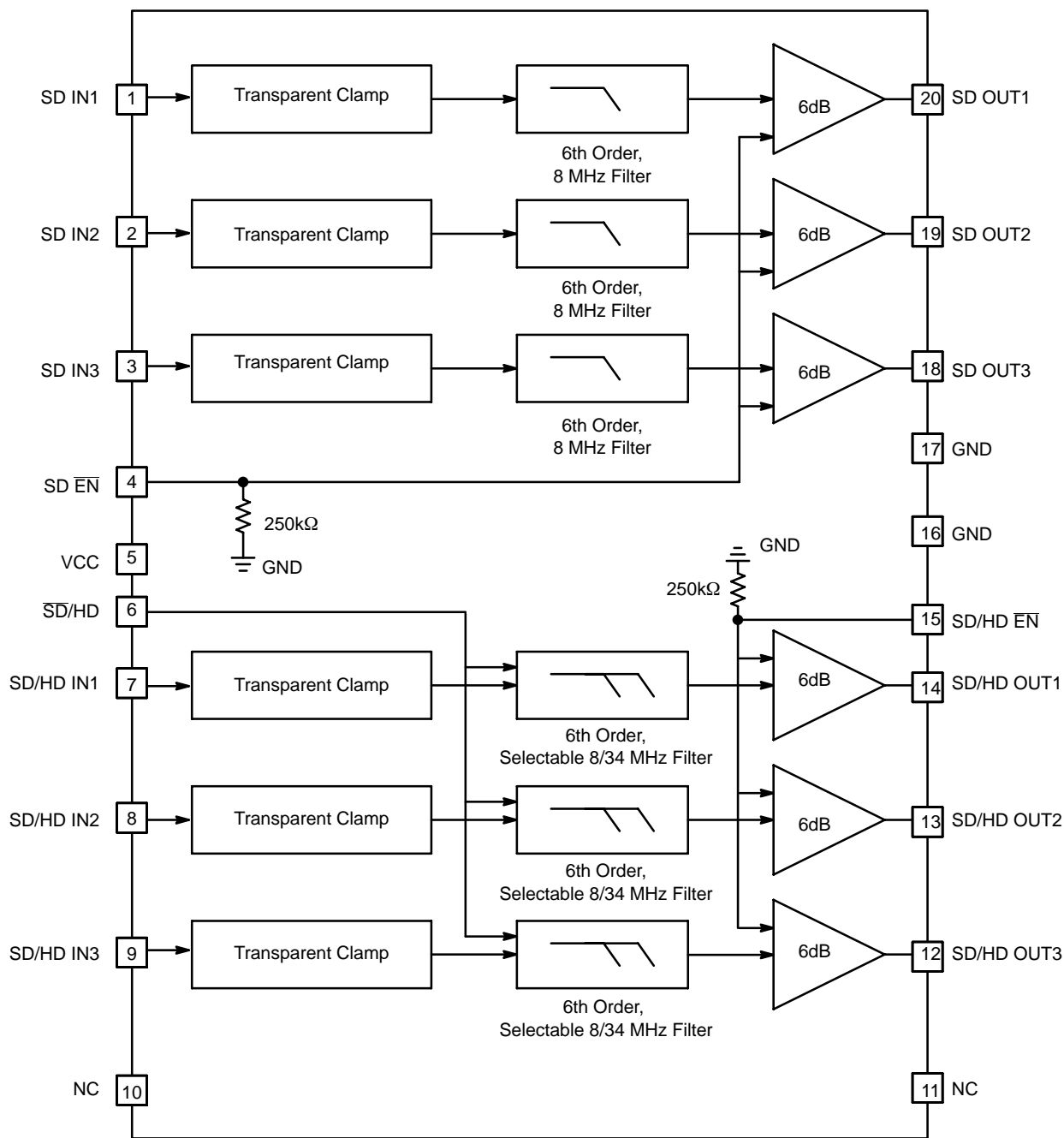


Figure 1. NCS2566 Block Diagram

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MAXIMUM RATINGS

Parameter	Symbol	Rating	Unit
Power Supply Voltages	V_{CC}	$-0.3 \leq V_{CC} \leq 5.5$	Vdc
Input Voltage Range	V_I	$-0.3 \leq V_I \leq V_{CC}$	Vdc
Input Differential Voltage Range	V_{ID}	$-0.3 \leq V_I \leq V_{CC}$	Vdc
Output Current Per Channel	I_O	50	mA
Maximum Junction Temperature (Note 1)	T_J	150	°C
Operating Ambient Temperature	T_A	-40 to +85	°C
Storage Temperature Range	T_{stg}	-	°C

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DC ELECTRICAL CHARACTERISTICS ($V_{CC} = +5.0\text{ V}$, $R_{source} = 37.5\ \Omega$, $T_A = 25^\circ\text{C}$, inputs AC-coupled with $0.1\ \mu\text{F}$, all outputs AC-coupled with $220\ \mu$)

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AC ELECTRICAL CHARACTERISTICS FOR HIGH DEFINITION CHANNELS (Pin Numbers (7, 14), (8, 13) & (9, 12)) (V_{CC} = +5.0 V, $V_{in} = 1 V_{PP}$, $R_{source} = 37.5 \Omega$, $T_A = 25^\circ C$, Inputs AC-coupled with 0.1 μF , All Outputs AC-coupled with 220 μF into 150 Ω Referenced to 400 kHz; unless otherwise specified, $\overline{SD}/HD = High$)

Symbol

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TYPICAL CHARACTERISTICS

$V_{CC} = +5.0\text{ V}$, $V_{in} = 1\text{ V}_{PP}$

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$V_{CC} = +5.0\text{ V}$, $V_{in} = 1\text{ V}_{PP}$, $R_{source} = 37.5\ \Omega$, $T_A = 25^\circ\text{C}$, Inputs AC-coupled with $0.1\ \mu\text{F}$, All Outputs AC-coupled with $220\ \mu\text{F}$ into $150\ \Omega$ Referred to 400 kHz; unless otherwise specified

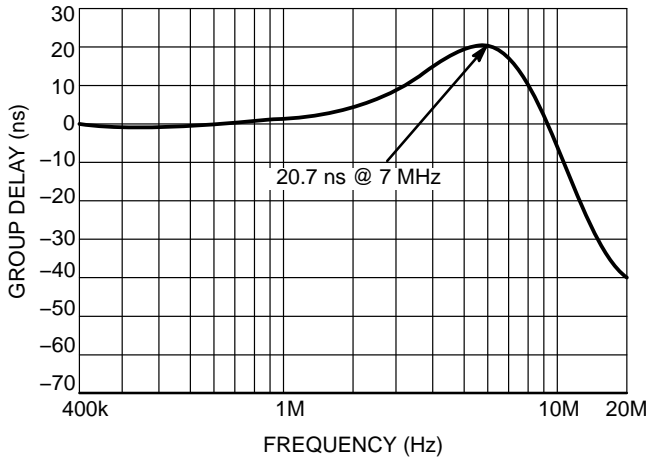


Figure 9. SD Normalized Group Delay

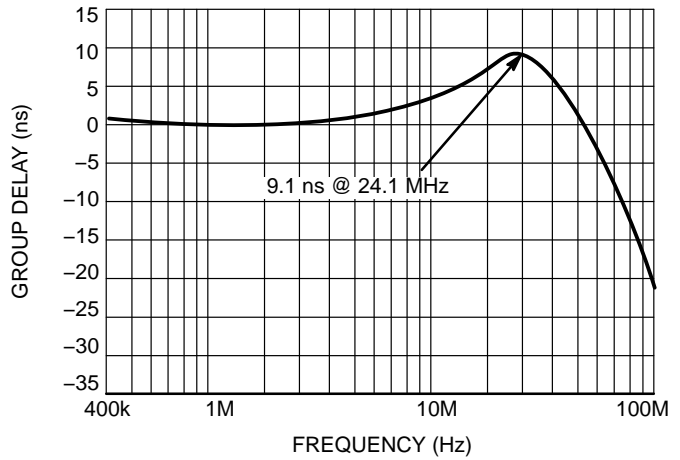


Figure 10. HD Normalized Group Delay

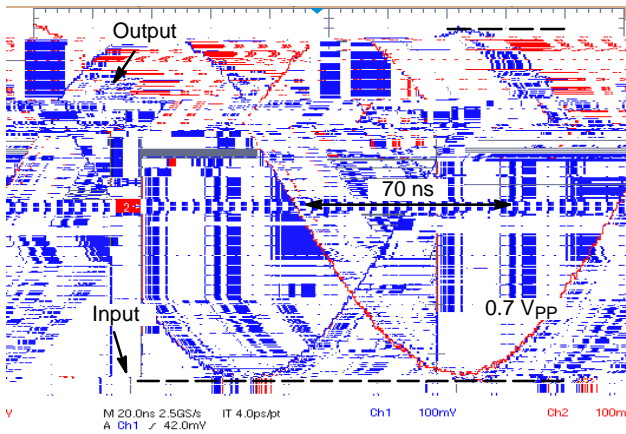


Figure 11. SD Propagation Delay

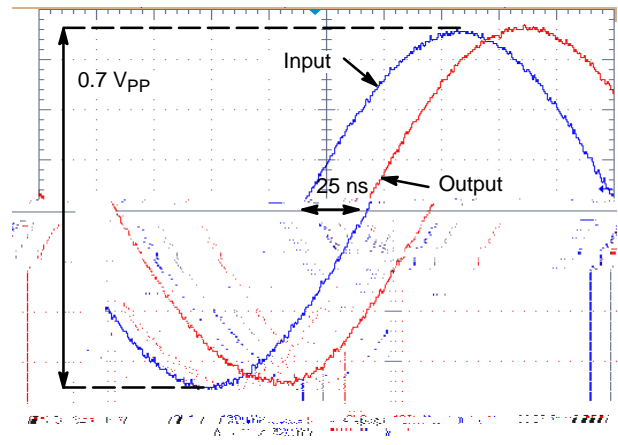


Figure 12. HD Propagation Delay

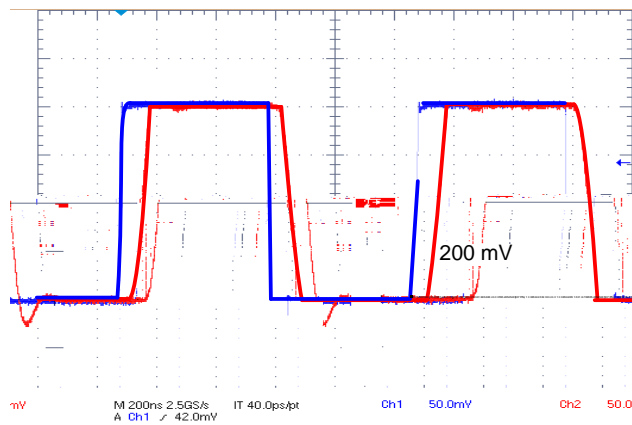


Figure 13. SD Small Signal Response

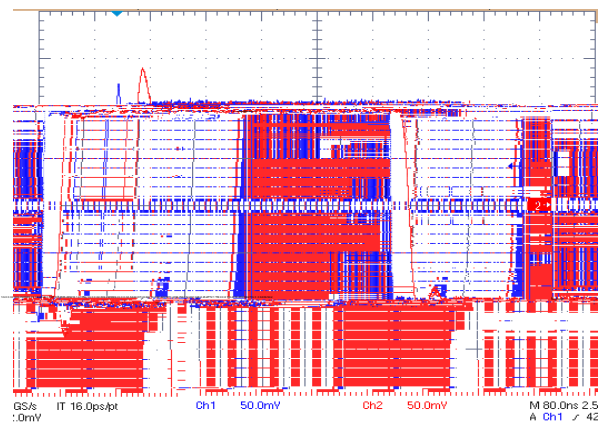


Figure 14. HD Small Signal Response

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TYPICAL CHARACTERISTICS

$V_{CC} = +5.0\text{ V}$, $V_{in} = 1\text{ V}_{PP}$, $R_{source} = 37.5\ \Omega$, $T_A = 25^\circ\text{C}$, Inputs AC-coupled with $0.1\ \mu\text{F}$, All Outputs AC-coupled with $220\ \mu\text{F}$ into $150\ \Omega$
 Referred to 400 kHz; unless otherwise specified

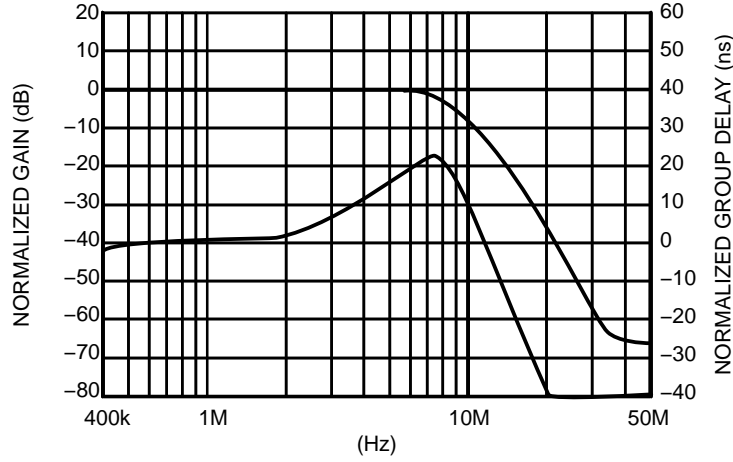


Figure 18. SD Frequency Response and Group Delay

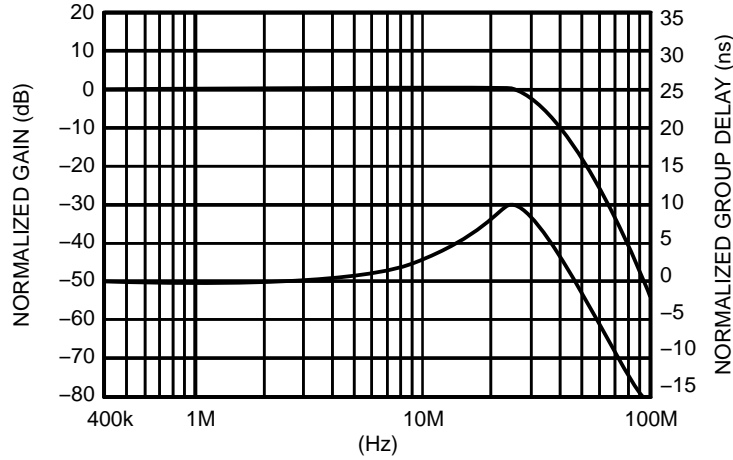


Figure 19. HD Frequency Response and Group Delay

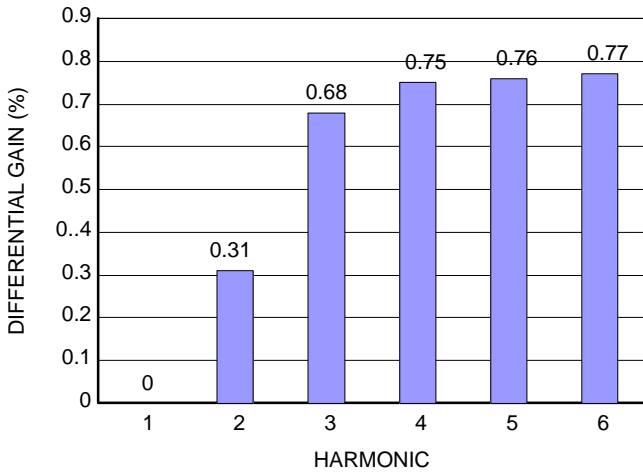


Figure 20. SD Differential Gain

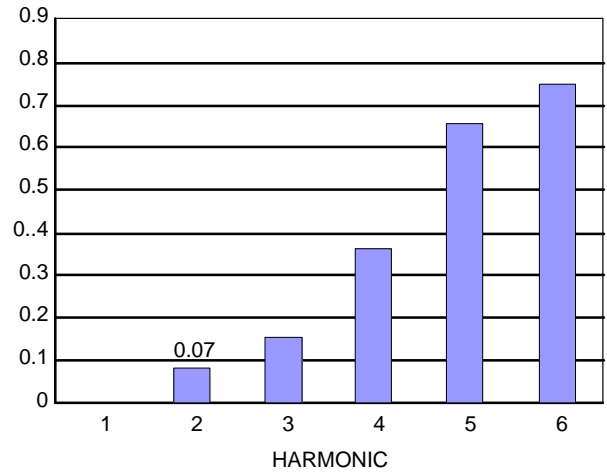


Figure 21. SD Differential Phase

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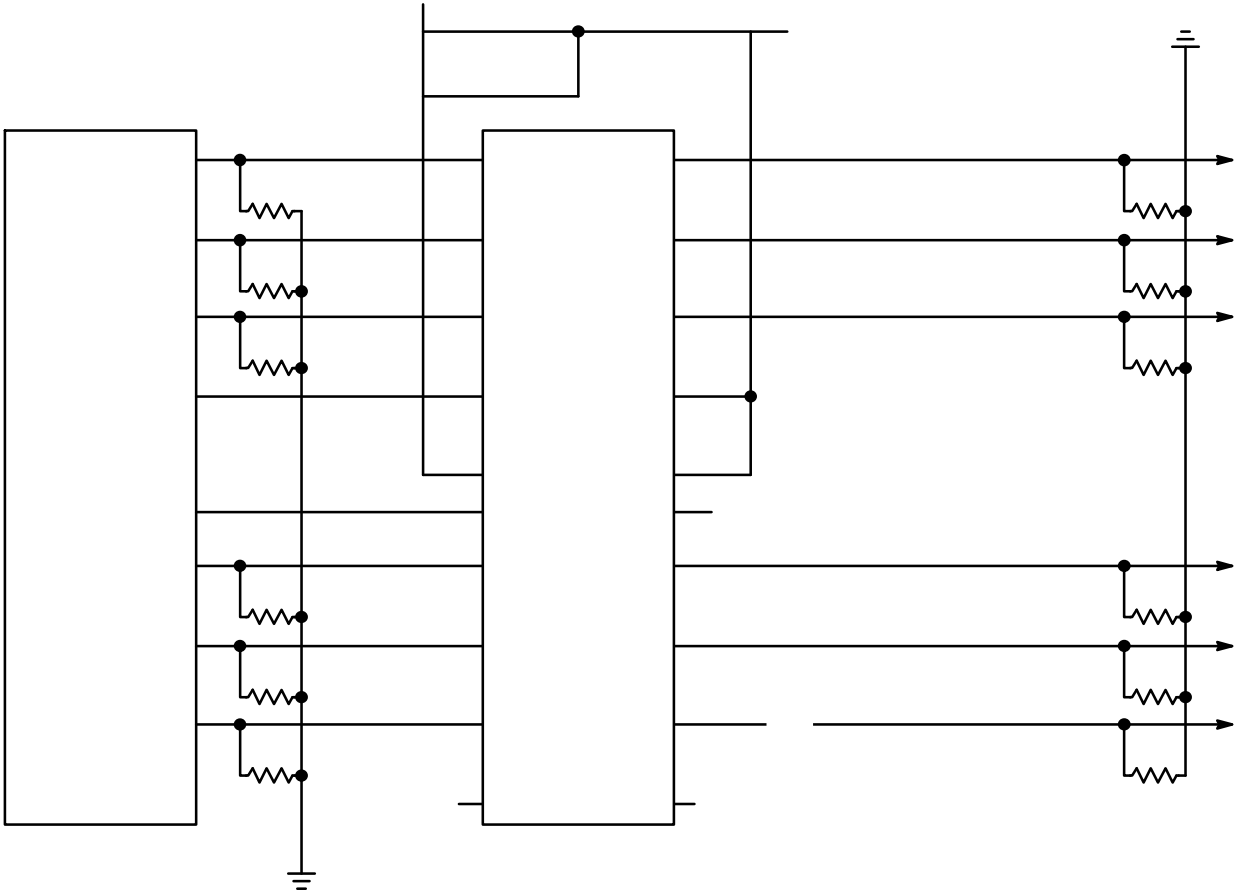


Figure 22. Typical Application

TSSOP-20 WB

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