

Title of Change:	NCP81075 datasheet specification update
Effective date:	15 Sep 2024
Contact information:	Contact your local onsemi Sales Office or KH.Lee@onsemi.com
Type of notification:	This Product Bulletin is for notification purposes only. onsemi will proceed with implementation of this change upon publication of this Product Bulletin.
Change Category:	Datasheet Specification Update
Change Sub-Category(s):	Datasheet Specification Update

Sites Affected:

onsemi Sites	External Foundry/Subcon Sites
None	None

Description and Purpose:

The purpose of this notification is to inform customers about NCP81075 product datasheet update on the following sections;

- Change in min, typ and max spec for propagation delay parameters. Figure 12 and 13 were updated in relation to this change.
- The -40 to 125°C EC table lines in propagation delay parameters were already covered by the wider -40 to 140°C spec, so the redundant lines were eliminated.”
- Change in min, typ and max spec for output delay matching parameters
- Provide clarity on UVLO (tDUVLO) delay time in relation to VDD slew rate. Fig 2 is updated to show this relationship.
- Updated tMON and tMOFF timing diagram (Fig 3) to show overlap in both edges. Figure 4 is updated in relation to tMON and tMOFF changes as well as Fig 6 to show response over temperature

There is no change in product die design or bill of material. The change will not impact the device’s form, fit or function.

Electrical Specification table

CURRENT VERSION

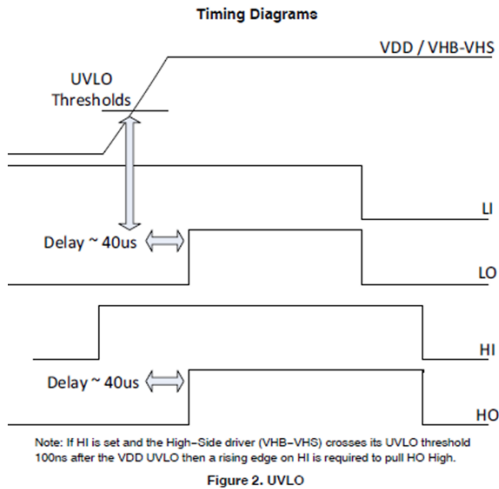
Test	Test Condition	min	typ	max
tDLFF	Cload=0 (-40 to 125°C)	--	20	45
	Cload=0 (-40 to 140°C)	--	20	50
tDHFF	Cload=0 (-40 to 125°C)	--	20	45
	Cload=0 (-40 to 140°C)	--	20	50
tDLRR	Cload=0 (-40 to 125°C)	--	20	45
	Cload=0 (-40 to 140°C)	--	20	50
tDHRR	Cload=0 (-40 to 125°C)	--	20	45
	Cload=0 (-40 to 140°C)	--	20	50
tMON		--	3.5	14
tMOFF		--	3.5	14

NEW VERSION

Test	Test Condition	min	typ	max
tDLFF	Cload=0 (-40 to 140°C)	14	20.6	30
tDHFF	Cload=0 (-40 to 140°C)	14	20.6	30
tDLRR	Cload=0 (-40 to 140°C)	12	18.8	28
tDHRR	Cload=0 (-40 to 140°C)	12	18.8	28
tMON		-10	-1.4	6
tMOFF		-10	-2.4	6

FIGURE 2: UVLO timing diagram

CURRENT VERSION



NEW VERSION

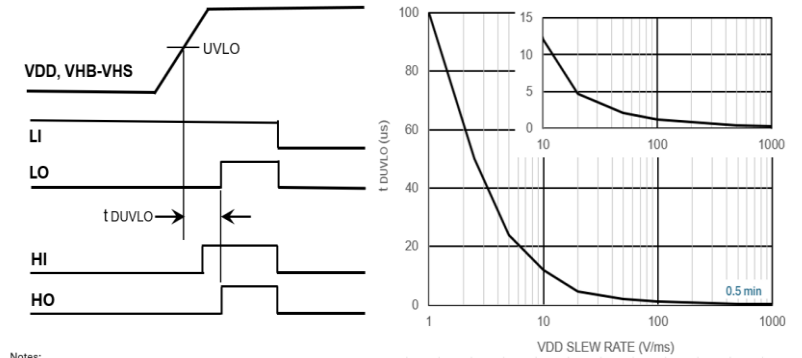


FIGURE 4: Propagation Delay Timing Diagram

CURRENT VERSION

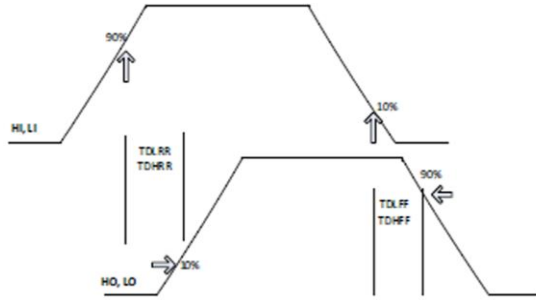


Figure 4. Propagation Delays

NEW VERSION

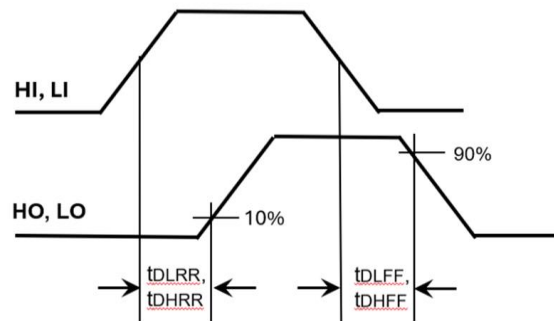
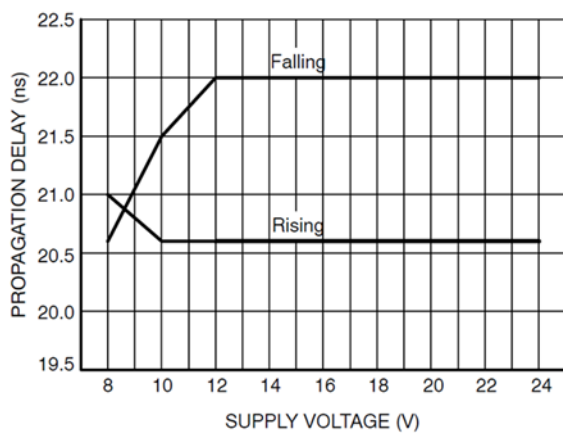


FIGURE 12: Propagation Delay vs Supply Voltage

CURRENT VERSION



NEW VERSION

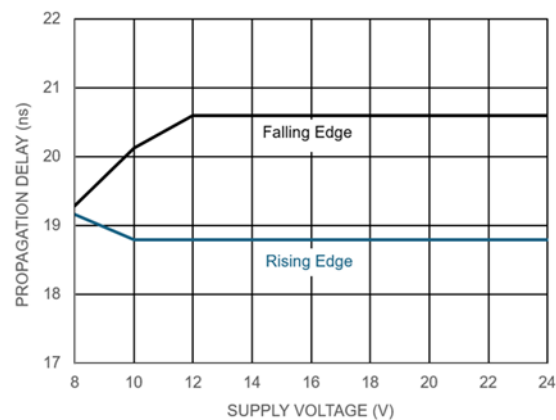
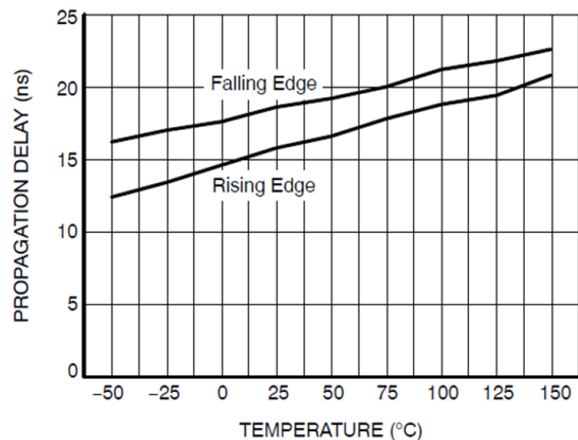


FIGURE 13: Propagation Delay vs Temperature

CURRENT VERSION



NEW VERSION

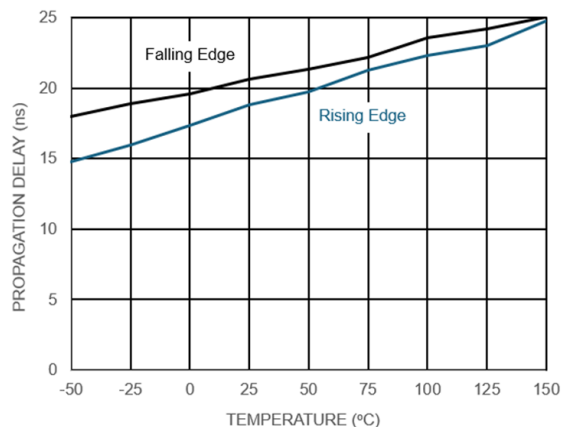
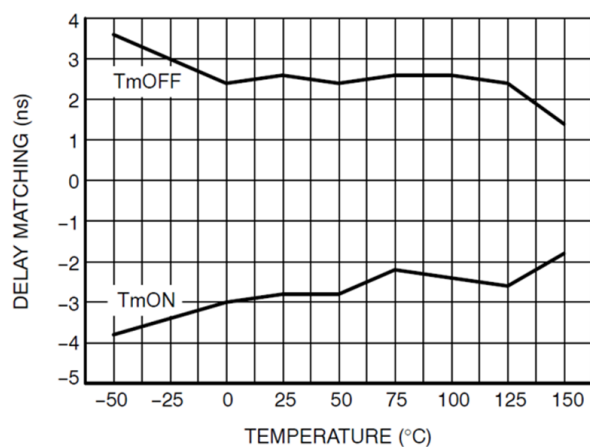


FIGURE 6: Delay Matching vs Temperature

CURRENT VERSION



NEW VERSION

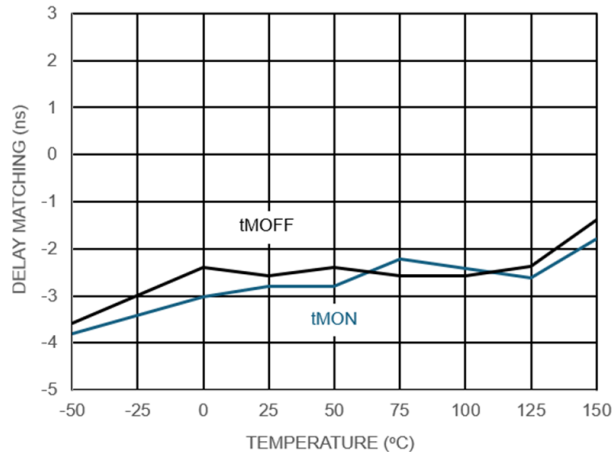
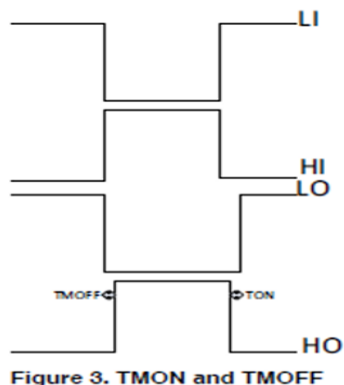
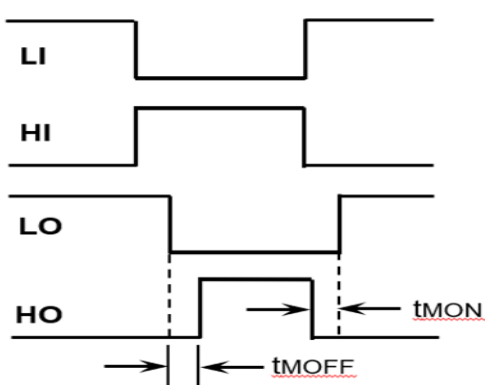


FIGURE 3: TMON and TMOFF

CURRENT VERSION



NEW VERSION



List of Affected Standard Parts:

Note: Only the standard (off the shelf) part numbers are listed in the parts list. Any custom parts affected by this PCN are shown in the customer specific PCN addendum in the PCN email notification, or on the **PCN Customized Portal**.

NCP81075MNTXG	NCP81075MTTXG	NCP81075DR2G
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