

XENSIV™ - magnetic angle sensors family



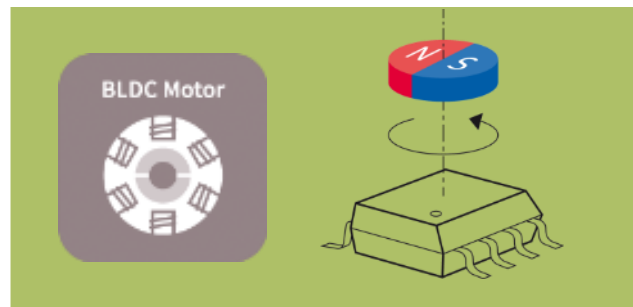
Infineon angle sensors – leading solutions for BLDC actuators

Broad portfolio of xMR solutions

- > Variety of Interfaces and product variants
- > AMR, GMR and TMR productive

Dual sensor package

- > Two sensors in one package
- > Same magnet size and costs as single sensor



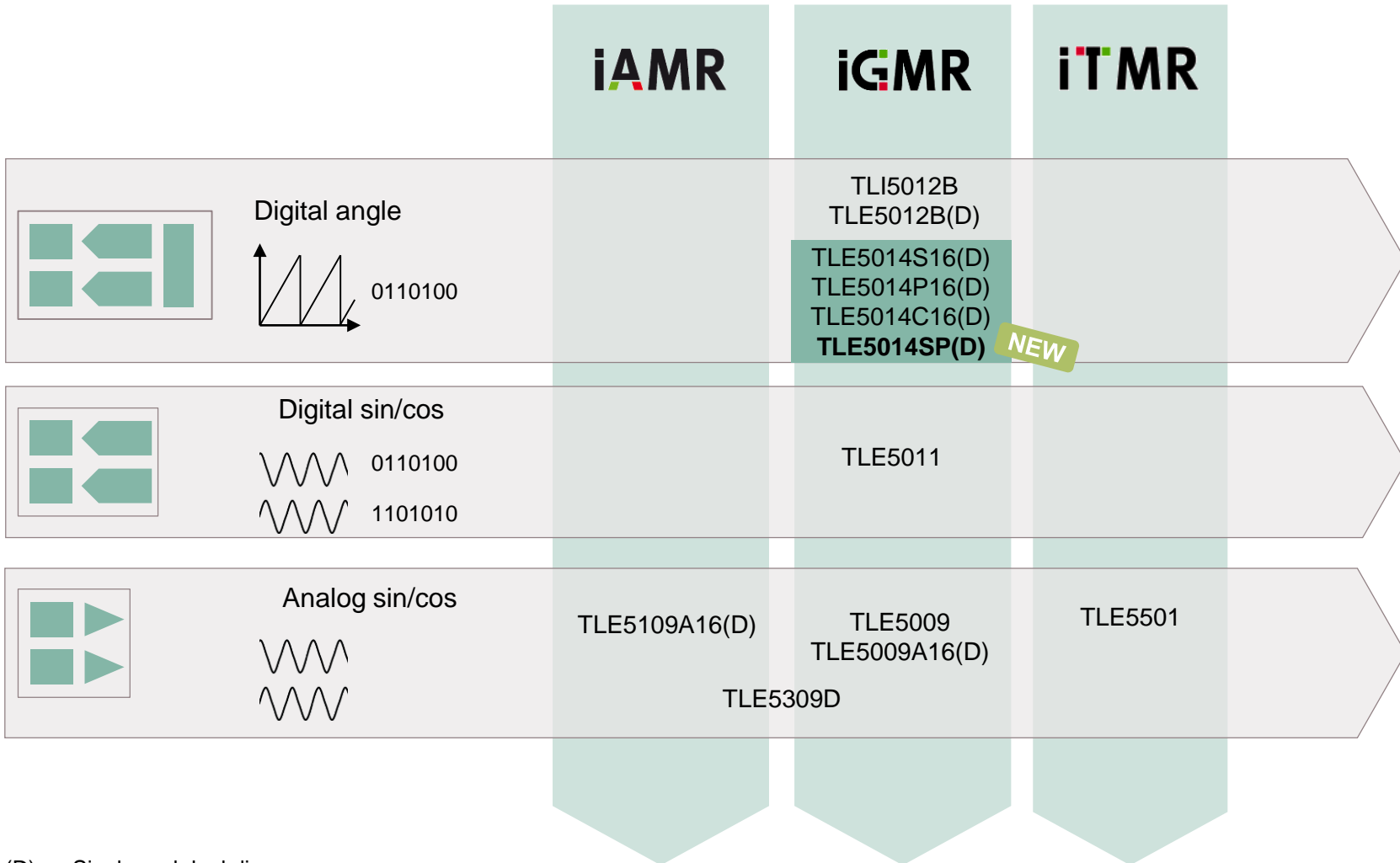
Design-in support

- > Online simulation tools
- > Evaluation kits & boards
- > Application notes

ISO 26262

- > Safety documents for most angle sensor products
- > New projects developed according ISO 26262

The growing Infineon angle sensor portfolio ...a perfect fit for rotation application



(D) = Single and dual die
D = Dual die only

Infineon's first TMR products TLE5501 dual channel TMR bridge angle sensors



iTMR

TLE5501 Angle Sensor Family



TLE5501 E0001

- > **Automotive qualified** acc. AEC Q100
- > **Pin-compatible to TLE5009**



ISO 26262
compliant

TLE5501 E0002

- > **ISO 26262-compliant** development **ASIL D**
- > World record: reaching **ASIL D** with just one single sensor chip

- > **Realizing cost-efficient solutions:**
 - very low temperature drift **reducing external calibration and compensation**
 - large output signals of up to **0.37 V/V**
 - **direct connection to the microcontroller** w/o further amplification
- > **Precise rotation sensing:** typ. angle error ~ **1.0 °** (over Temperature & lifetime)
- > **Very low current consumption:** supply current ~2mA
- > Magnetic field range (20mT to 100mT)
- > DSO8 **package** for the single sensor → **Grade 0**

TLE5014: ISO 26262-compliant, easy-to-use highest accuracy digital angle sensors



TLE5014 – Characteristics

iGMR

- > **Easy-to-use plug & play sensors:** pre-configured and pre-calibrated
- > Offering **high flexibility:**
 - Available as **single** and **dual die** products
 - **12bit digital interface** with protocol options **PWM, SENT, SPC, SPI**
 - **E²PROM** and **look-up table** for customer configuration and calibration
- > **High angle accuracy:** max. 1.0° over temperature and lifetime
- > **High voltage capability** up to 26 V
- > **Fully compliant development according ISO 26262**
 - developed acc. **ASIL D** level
 - sensor reaching **ASIL C** metrics



ISO 26262 compliant

TLE5014 – Products

TLE5014 C16	TLE5014 C16D	TLE5014 P16	TLE5014 P16D	TLE5014 S16	TLE5014 S16D	TLE5014 SP16	TLE5014 SP16D
SPC		PWM		SENT		SPI	
Single die	Dual die	Single die	Dual die	Single die	Dual die	Single die	Dual die

NEW

Get in contact with us.



Do you have questions?
Do you want to get in touch with Infineon's experts?



Please write an email to
virtualsensorexperience@Infineon.com



Afterwards one of our experts
will be in touch with you soon.

Infineon's Virtual sensor experience



Go-live July 20, 2020

You are invited to explore our **sensor solutions virtual booth**.

From the comfort of your own desk you can discover our
XENSIV™ sensor technologies.

www.infineon.com/virtualsensorexperience



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