

Standard KRYSTAL[®] Wafer

KRYSTAL[®] Wafer

Superior wafers for piezoelectric MEMS, that can be single-crystallize various piezoelectric materials to be deposited by using our original ZrO₂ Buffer.

The standard specification of KRYSTAL[®] Wafer Si substrates are as follows:

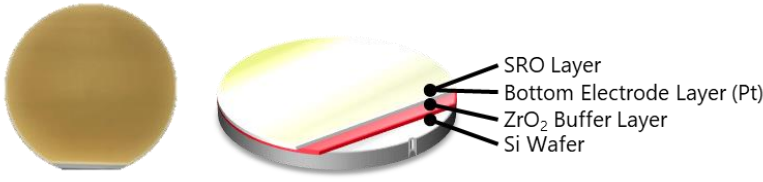
- PZT (Actuator type) with top electrode on Si wafer

Top Electrode PZT (Actuator Type) Wafer		Layer Structure	Specification
	Top Pt	100nm (Target)	
	Top SRO	10nm (Target)	
	PZT (Actuator)	2000nm ± 10%	
	Bottom SRO	40nm ± 10%	
	Bottom Pt	150nm ± 10%	
	ZrO ₂ Buffer	60nm ± 10%	
	Product Name	Parts Number	Wafer Size
KRYSTAL Wafer-TE PZT(A20)-6-Si(100)	RF200-6F00	6inch	625 μm
KRYSTAL Wafer-TE PZT(A20)-8-Si(100)	RF300-8F00	8inch	725 μm

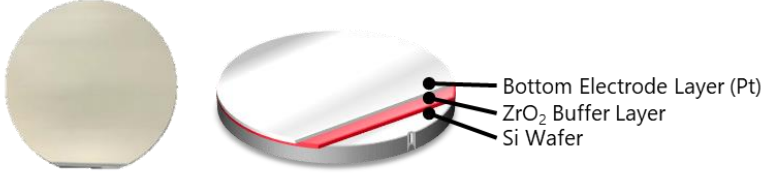
- PZT (Actuator type) on Si wafer

PZT (Actuator Type) Wafer		Layer Structure	Specification
	—	—	
	—	—	
	PZT (Actuator)	2000nm ± 10%	
	Bottom SRO	40nm ± 10%	
	Bottom Pt	150nm ± 10%	
	ZrO ₂ Buffer	60nm ± 10%	
	Product Name	Parts Number	Wafer Size
KRYSTAL Wafer-PZT(A20)-6-Si(100)	RF200-6D00	6inch	625 μm
KRYSTAL Wafer-PZT(A20)-8-Si(100)	RF300-8D00	8inch	725 μm


- SRO/Pt bottom electrode on Si wafer

Bottom Electrode SRO/Pt Wafer		Layer Structure	Specification
	—	—	—
	—	—	—
	—	—	—
	Bottom SRO	40nm ± 10%	
	Bottom Pt	150nm ± 10%	
	ZrO2 Buffer	60nm ± 10%	
Product Name	Parts Number	Wafer Size	Wafer Thickness
KRYSTAL Wafer-SRO/Pt-6-Si(100)	RF200-6C00	6inch	625 μm
KRYSTAL Wafer-SRO/Pt-8-Si(100)	RF300-8C00	8inch	725 μm

- Pt bottom electrode on Si wafer

Bottom Electrode Pt Wafer		Layer Structure	Specification
	—	—	—
	—	—	—
	—	—	—
	—	—	—
	Bottom Pt	150nm ± 10%	
	ZrO2 Buffer	60nm ± 10%	
Product Name	Parts Number	Wafer Size	Wafer Thickness
KRYSTAL Wafer-Pt-6-Si(100)	RF200-6B00	6inch	625 μm
KRYSTAL Wafer-Pt-8-Si(100)	RF300-8B00	8inch	725 μm

- ZrO2 buffer on Si wafer

ZrO ₂ Buffer Wafer		Layer Structure	Specification
	—	—	—
	—	—	—
	—	—	—
	—	—	—
	—	—	—
	ZrO2 Buffer	60nm ± 10%	
Product Name	Parts Number	Wafer Size	Wafer Thickness
KRYSTAL Wafer-ZrO2-6-Si(100)	RF200-6A00	6inch	625 μm
KRYSTAL Wafer-ZrO2-8-Si(100)	RF300-8A00	8inch	725 μm

Contact: I-PEX Piezo Solutions Inc. Yokohama office
 Shin-Yokohama Square Bldg., 11F, 2-3-12, Shin-Yokohama, Kohoku-ku, Yokohama-city, Kanagawa, 222-0033, JAPAN
 (TEL: +81-45-472-7111)