MEASURED AND DERIVED ELASTIC COMPLIANCE CONSTANTS, s_{ij} (10^{-12} m^2/N), AND ELASTIC STIFFNESS CONSTANTS, c_{ij} (10^{10} N/m^2), FOR TRS X4B CRYSTALS, COMPARED TO TRS X2B

Material	s_{11}^E	s_{12}^E	s_{13}^E	s_{33}^E	s_{44}^E	s_{66}^E	s_{11}^D	s_{12}^D	s_{13}^D	s_{33}^D	s_{44}^D	s_{66}^D
TRS X4B	49.0	-20.0	-26.5	57.3	15.2	39.4	38.2	-30.8	-4.0	10.3	14.3	39.4
TRS X2B	52.1	-24.6	-26.4	59.9	16.0	28.3	41.8	-34.8	-3.9	10.3	14.0	28.3

Material	c_{11}^E	c_{12}^E	c_{13}^E	c_{33}^E	c_{44}^E	c_{66}^E	c_{11}^D	c_{12}^D	c_{13}^D	c_{33}^D	c_{44}^D	c_{66}^D
TRS X4B	11.9	10.5	10.4	11.4	6.6	2.5	12.3	10.9	9.0	16.7	7.0	2.5
TRS X2B	12.4	11.1	10.4	10.8	6.3	3.5	12.6	11.3	9.3	16.8	7.1	3.5

PIEZOELECTRIC COEFFICIENTS, d_{ij} (pC/N), e_{ij} (C/m^2), g_{ij} (10^{-3}Vm/N), h_{ij} (10^8V/m), AND ELECTROMECHANICAL COUPLING FACTORS, k_{ij}, FOR TRS X4B CRYSTALS, COMPARED TO TRS X2B

Material	d_{33}	d_{31}	d_{15}	e_{33}	e_{31}	e_{15}
TRS X4B	1320	-634	105	18.6	-4.8	6.9
TRS X2B	1540	-699	164	22.3	-3.9	10.3

Material	g_{33}	g_{31}	g_{15}	h_{33}	h_{31}	h_{15}
TRS X4B	35.6	-17.0	8.8	28.9	-7.4	6.5
TRS X2B	32.2	-14.6	11.9	27.7	-4.8	8.7

Material	k_{33}	k_{31}	k_{15}	k_t	k_{31} (45°C)
TRS X4B	0.91	0.47	0.25	0.57	0.80
TRS X2B	0.91	0.44	0.35	0.60	0.81

DIELECTRIC CONSTANTS, $\varepsilon_r = \varepsilon_{ij}/\varepsilon_0$, AND DIELECTRIC IMPERMITTIVITY CONSTANTS, β ($1/\varepsilon_r * 10^{-4}$), FOR TRS X4B CRYSTALS, COMPARED TO TRS X2B

Material	ε_{33}^T	ε_{11}^T	ε_{33}^S	ε_{11}^S	β_{33}^T	β_{11}^T	β_{33}^S	β_{11}^S
TRS X4B	4200	1335	729	1200	2.38	7.49	13.72	8.33
TRS X2B	5400	1560	910	1340	1.85	6.41	10.99	7.46

TRS X4B Dielectric loss: 0.2-0.8%, Ec: 4.5-6kv/cm, Trt: 120-130°C, Tc: 160-200°C