CLAIMS

[Claim 1] A niobium oxide sintered sputtering target having a composition of NbO_x ($2 < x \leq 2.4$), wherein a ratio of an X-ray diffraction peak intensity from a (110) plane of Nb relative to the maximum X-ray diffraction peak intensity, among X-ray diffraction peaks of a (400) plane of NbO_2, and a (001) plane and a (110) plane of Nb_2O_5, or any X-ray diffraction peaks within a range of $2\theta = 20$ to 60°, is 1% or less.

[Claim 2] The niobium oxide sintered sputtering target according to claim 1, wherein the niobium oxide sintered sputtering target has a relative density of 90% or higher.

[Claim 3] The niobium oxide sintered sputtering target according to claim 1 or claim 2, wherein a difference in density at arbitrary in-plane points of the sintered compact is 1.0% or less.

[Claim 4] The niobium oxide sintered sputtering target according to any one of claims 1, 2 and 3, wherein the niobium oxide sintered sputtering target has a diameter of 58 mm or more.

[Claim 5] The niobium oxide sintered sputtering target according to any one of claims 1 to 4, wherein the niobium oxide sintered sputtering target has a resistivity of 10 Ω•cm or less.

[Claim 6] The niobium oxide sintered sputtering target according to claim 5, wherein the niobium oxide sintered sputtering target contains a phase of $Nb_{12}O_{29}$.

[Claim 7] The niobium oxide sintered sputtering target according to claim 6, wherein a ratio of an X-ray diffraction peak intensity from a $Nb_{12}O_{29}$ (400) plane relative to an X-ray diffraction peak intensity from a NbO_2 (400) plane is 10% or higher.

[Claim 8] A method of producing a niobium oxide sintered sputtering target, wherein a NbO_2 powder and a Nb_2O_5 powder are mixed, and the pulverized powder thereof is sintered via hot press at 950°C to 1300°C.

[Claim 9] The method of producing a niobium oxide sintered sputtering target according to claim 8, wherein an average grain size of the NbO_2 powder is 1 to 10 μm, and an average grain size of the Nb_2O_5 powder is 1 to 10 μm.

[Claim 10] The method of producing a niobium oxide sintered sputtering target according to claim 8 or claim 9, wherein the NbO_2 powder and the Nb_2O_5

powder are mixed via wet blending.

[Claim 11] The method of producing a niobium oxide sintered sputtering target according to any one of claims 8 to 10, wherein the NbO_2 powder has a purity of 99.9% or higher, and the Nb_2O_5 powder has a purity of 99.9% or higher.