X24b   WERGS Radio Galaxy Exploration: Radio AGN properties of dropout selected candidates at $z \gtrsim 4$ from HSC-VLASS

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High-redshift radio galaxies (HzRGs; $z \gtrsim 1$) play a crucial role in understanding radio-mode AGN feedback and the co-evolution of host galaxies and supermassive black holes. However, the scarcity of sources at $z \gtrsim 4$ has limited past studies to ultra-steep-spectrum (USS) selections. We present a new method for identifying HzRG candidates via positional cross-matching between the HSC-SSP DR S23B Wide survey and the VLASS Epoch 2 catalog. Optical counterparts are identified within a $1.5''$ tolerance, and g-/r-/i-/z-dropouts aassociated with compact radio sources are selected, yielding ~ 350 g-dropouts and ~ 50 r-dropouts. This inclusive method overcomes the bias of traditional USS selection, with most sources showing moderately steep ($-1 \lesssim \alpha \lesssim 0$) or Compact Steep Spectrum radio slopes, while also capturing rarer objects. After multi-wavelength validation from LoTSS, TGSS, VIKING, and UKIDSS image, we recover candidates over > 1000 deg^2, extending optimistically to $z \sim 7$, well into the epoch of reionization (EoR). We also observe a sharp decline in number density at $z \sim 5.5$ within the i-dropouts from $\sim 5 \times 10^{-8}$ Mpc^{-3} to $\sim 10^{-10}$ Mpc^{-3}, which may provide key insights into the evolution of radio AGNs during the EoR. We will present a statistical overview of these candidates, including their radio spectral indices, radio luminosities, and the inferred AGN luminosity function.